

## Financial Technology and Financial Inclusion on MSME: Mixed-Method Research Approach

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**Abstract** - This study aims to examine the role of financial technology in increasing financial inclusion in Micro, Small, and Medium Enterprises. This research uses mixed-method research with sequential mixed methods especially sequential explanatory strategy. In the first phase, 116 questionnaires were given to respondents as many as 116 MSMEs then conducted interviews with respondents and related parties in depth. Empirical evidence shows that the role of Financial Technology has a positive and significant effect on Financial Inclusion. These results indicate that fintech can increase financial inclusion. Based on interviews, fintech products that are often used by MSMEs are third-party payment systems and Peer-to-Peer (P2P) type of payment systems. Examples of platforms that are often used by MSMEs are Go food, Gopay, Grab food, OVO, JakOne, M-Banking, and SMS Banking. For the Crowdfunding fintech type, it has not been implemented by many MSMEs. The large number of MSME entrepreneurs who have used fintech products in their businesses shows that MSME entrepreneurs have used financial services in the form of savings accounts so that it has an impact on increasing financial inclusion. Suggestions from the results of this study are the Government needs to conduct regular training on the use of financial technology to MSME actors, there are strong synergy and cooperation in developing a fintech system to improve the digital economic system at MSMEs. Regulations need to be updated with the development of innovations).

Keywords: Financial Technology, Financial Inclusion, Micro Small and Medium Enterprises (MSME)

### INTRODUCTION

Fintech's implementation in the banking industry will make it easier for business people, especially MSMEs to access financial service products offered and apply for financing directly without having to come directly to branch offices. In addition to making it easier for MSME sector businesses to gain financial access, it can also improve financial inclusion and improve information technology.

MSME is one of the important variables in a country's economy. The MSME sector can encourage economic growth and create jobs. The number of MSMEs in Indonesia continues to increase from year to year. In 2012, the number of MSMEs was 55,221,396 units, but in 2017 the number of MSMEs increased by 13.8% to 7,716,680. This increase in the number of MSMEs is correlated with an increase in employment. The number of workers increased by 14.96% from 2012-2017.

Fintech is managed by a startup company that provides convenience in transactions, especially financial transactions. The closure of several retail companies such as Giant, a subsidiary of PT Hero Supermarket Tbk (HERO), 7-Eleven (Sevel) may be

caused by intense competition in the retail and online businesses in Indonesia.

The use of fintech by startup companies has increased rapidly from 2011 to 2017. This rapid increase shows the existence of technological systems that provide services that have advantages compared to existing systems. Fintech comes with various types of businesses, namely: Payment Channel Systems, Peer to Peer (P2P) Lending, Crowdfunding, and others. The most dominant fintech business performer in Indonesia is payment. The payment system is an electronic service that replaces currency and demand deposits as a means of payment, for example, e-money cards and bitcoin. Fintech provides convenience services and lower prices compared to the services of existing institutions.

Based on Bank Indonesia's Financial Stability Review (2017), Fintech is considered capable of reaching people who cannot yet be reached by banks. Fintech aims to make people easier to access financial products, facilitate transactions, and also increase financial inclusion.

Inclusive finance benefits all sectors such as the public, regulators, the private sector, and the government. Inclusive finance can increase the

effectiveness and efficiency of the economy, support financial stability, increase the human growth index, have a positive contribution to local economic growth, and can reduce inequality and income reduction that will have an impact on reducing poverty and improving people's welfare.

According to the Financial Services Authority (2017) in the SNLKI Revisit, public financial literacy will be followed by public financial inclusion. People who already know financial service institutions, are skilled in using financial products and services and have confidence in financial service institutions need to be supported by the availability of access to financial services institutions, products, and services. The increasing use of Fintech is one of the drivers for increasing national financial inclusion. Where, Indonesian people who have internet penetration according to the APJII survey (2016) have reached 51.8%, which is 132.7 million of the 256.2 million population of Indonesia. Thus, digital and internet-based financial services will be very easy to reach by people in various circles and areas of residence.

Fintech has been playing an increasing role in shaping financial and banking landscapes (Jagtiani & Lemieux, 2017). This is supported by Grohmann et al., 2018; Hutabarat, 2018; Hau et al, 2017 which states that financial technology influences financial inclusion.

This study aims to analyze and obtain empirical evidence regarding the effect of the role of financial technology on increasing financial inclusion in small and medium micro businesses. This study is different from previous researchers where previous studies used a more descriptive approach in researching fintech at SMEs. This study examines the influence of fintech on financial inclusion in a comprehensive manner both through a quantitative approach and a qualitative approach by conducting surveys, direct observations, and in-depth interviews with MSMEs and related parties, to obtain comprehensive research results and fill the gaps of the lack of previous researchers).

## 1. Literature Review

In this section, we discuss the relations among these variables as studied in the relevant literature and proceed to develop the hypotheses

### 1.1. Financial Technology

The financial technology (fintech) industry is one method of financial services that are gaining in popularity in the current digital era. digital payment is one of the sectors in the most developed FinTech industry in Indonesia. This sector is then expected by the government and the community to encourage an increase in the number of people who have access to financial services. Bank Indonesia (2016) classifies financial technology into four categories, as follows:

- a. Crowdfunding and peer to peer (P2P) lending.
- b. This classification is based on the function of the platform as a means of meeting capital seekers and investors in the field of loans. This platform uses

information technology, especially the internet, to provide easy loan services.

- c. Market aggregator
- d. This category is a medium that collects and collects financial data from various data providers to be presented to users. This financial data can then be used to facilitate users in comparing and choosing the best financial products.
- e. Risk and investment management
- f. Classification for financial technology services that function as financial planners in digital form. So, users can plan and know the financial condition at any time and all circumstances.
- g. Payment, settlement, and clearing Financial technology services

This category serves to facilitate users in making payments through online quickly. Fintech is under the supervision of Bank Indonesia.

### 1.2. Financial Inclusion

Financial inclusive refers to the number of people who become customers or users of financial services in Indonesia. There are many types of financial services, for example, safe money-saving, transfers, loans, investments, and insurance. The Financial Services Authority (2016) defines financial inclusion as the availability of access to various financial institutions, products, and services by the needs and abilities of the community to improve the welfare of the community.

Based on the Financial Services Authority Regulation No. 76 / POJK.07 / 2016 regarding increasing financial literacy and inclusion in the financial services sector for consumers and / or the public, the objectives of financial inclusion include:

- a. Increased public access to financial services institutions, products and services;
- b. Increased supply of financial products and / or services by financial service businesses that are in accordance with the needs and abilities of the community;
- c. Increased use of financial products and / or services in accordance with the needs and abilities of the community; and
- d. Increasing the quality of the use of financial products and services according to the needs and abilities of the community.

According to the Financial Services Authority (2017), public financial literacy will be followed by community financial inclusion. People who already know the services of financial institutions, are skilled in using financial products and services, and have confidence in financial institutions need to be supported by the availability of access to financial institutions, products, and services. The increasing use of Fintech is one of the drivers for increasing national financial inclusion. This is supported by research Hutabarat (2018) which shows that financial technology has a positive influence on financial inclusion. The results of this study can explain that the higher the community

who use digital-based financial services will support the achievement of the implementation of financial inclusion by the government. The availability of financial services will be more extensive and can reach people who previously had difficulty in accessing financial products and services (Grohmann et al., 2018; Hau et al, 2017; Soriano, 2017). The change in the form of services and financial products from conventional to technology-based efficiency of operational time and costs (Jagtiani & Lemieux, 2017). Based on the previous theoretical and research studies, the following hypotheses and frameworks are made:

H: Financial technology has a positive effect on increasing financial inclusion.

**METHODOLOGY**

This research uses mixed-method research with a sequential mixed methods strategy with a sequential explanatory strategy. In this strategy, the first step is to collect and analyze quantitative data and then collect and analyze data based on qualitative results. This weight or priority is given to quantitative data. In the first stage, the researcher gave questionnaires to 116 respondents of SMEs and then conducted a guided free interview that is the interviewer using an interview guide made in the form of a list of questions, but not in the form of permanent sentences. The composition of the questions and the wording of each question can be changed at the time of the interview tailored to the needs and conditions. The population in this study was 539 registered MSMEs in Setiabudi District. The sampling method used in this study is the purposive sampling method, namely SMEs who know financial technology. The number of samples obtained was 116 MSMEs. The endogenous variable in this study is financial inclusion, while the exogenous variable is financial technology.

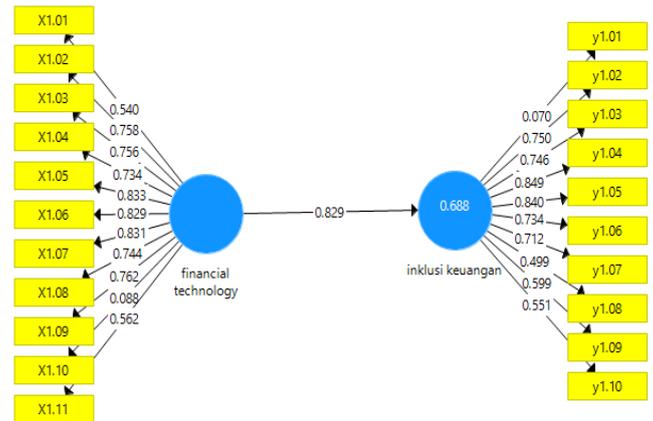
To test the research hypothesis, the following research model is used:

$$\text{Include} = \alpha + \beta \text{ Fintech} + \square.$$

**RESULTS AND DISCUSSION**

**1. Validity and Reliability Test**

Based on the validity test output, there is still a loading factor whose value is below 0.5. Because it has a low convergent validity value, the question items that have a loading factor below 0.5 must be dropped, based on the output indicators (X1.10), (Y.01), and (Y.08) the outer loading is below 0, 5 so that the indicator must be dropped. Research results can be seen in figure 1 as follows.



Source : Smart PLS, 2019

Figur 1. Outer Loading

Based on the output in the path diagram above, all loading factors already meet convergent validity that is the indicator value is above 0.5. For more clearly the table describes the loading factor and T-statistic value for each indicator below that has been improved.

Table 1. Outer Loading and T-Statistic

Variable	Indicator	Loading	T-Statistic		Results
			Financial Technology	Financial Inclusion	
Financial Technology	X1.01	0.531	6.755		Valid and significant t**
	X1.02	0.757	16.534		Valid and significant t**
	X1.03	0.751	14.696		Valid and significant t**
	X1.04	0.727	13.176		Valid and significant t**
	X1.05	0.843	31.936		Valid and significant t**
	X1.06	0.839	30.604		Valid and significant t**
	X1.07	0.841	31.227		Valid and significant t**
	X1.08	0.741	15.348		Valid and significant t**
	X1.09	0.757	16.846		Valid and significant t**
	X1.11	0.553	6.155		Valid and significant t**
	Financial Inclusion	X2.02	0.787		23.661

Inclusion	X2.03	0.783		23.395	Valid and significant t**
	X2.04	0.865		31.872	Valid and significant t**
	X2.05	0.858		29.721	Valid and significant t**
	X2.06	0.706		11.866	Valid and significant t**
	X2.07	0.706		13.905	Valid and significant t**
	X2.09	0.550		6.831	Valid and significant t**
	X2.10	0.512		5.555	Valid and significant t**

Source: Data primer processed, 2019  
\*\*\*Significance at 1%, \*\*5%, and \* 10%

Based on the output in the diagram above, the loading factor meets convergent validity, that is, the indicator value is above 0.5. All are significant at the 5% level. Reliability Test is a reliability test to determine the extent to which the measuring instrument used can be trusted or relied upon. In research, a variable is said to be quite reliable if the variable has a construct reliability value greater than 0.6 (Wati, 2017: 254). Testing in this study uses SmartPLS. The following table is the result of reliability testing

Table 2. Hypotheses Test

Variable	Coefficient	T Statistics	Results
Financial Technology -> Inklusi Keuangan	0.823	39.634	Significant***

Source: Data processed, 2019  
\*\*\*Significance at 1%, \*\*5%, and \* 10%

Path coefficient obtained from the influence of Financial Technology variables on Financial Inclusion of 0.823 with a t-statistic value of 39.634 > 1.66 at a significant level  $\alpha = 0.05$  (5%) which states that there is a positive and significant effect between Financial Technology on Inclusion Finance. The value of 0.823 on the parameter coefficient means that the better the Financial Technology, the Financial Inclusion will increase.

The results of this study support the research hypothesis, where financial technology has a significant and positive influence on financial inclusion. The results of this study are in line with research Hutabarat (2018) which states that financial technology has a positive and significant influence on financial inclusion. The results of this empirical test also support research conducted by Ozili, 2018;

Jagtiani & Lemieux, 2017, and Grohmann et al., 2018. This empirical evidence is supported by the facts in the field through observation and interview methods, where SMEs in the Setiabudi District have used fintech products in businesses such as Gofood, Grab food, Jakone, and Ovo. With a large number of MSME actors using the fintech products, the inclusive finance at MSME has increased because MSME players have used financial services in the form of savings accounts. The role of fintech in increasing financial inclusion is dominated by the business activities of payment and loan transactions, the remainder in the form of aggregators, crowdfunding, personal finance planning, landing, and others. The majority of SMEs in Setia Budi Sub-district do not yet know the type of fintech products (crowdfunding, peer to peer lending) in providing easy lending money. They also have not been able to do risk management properly in managing their business

## CONCLUSION

Empirical results indicate that the role of Financial Technology has a positive and significant effect on Financial Inclusion. Fintech provides an important role in increasing financial inclusion. fintech is dominated by payment transaction and loan business activities, the rest is in the form of aggregators, crowdfunding, personal finance planning, landing, and others. The existence of fintech can facilitate the public in payment transactions, fintech serves MSMEs that cannot be served by the traditional financial industry due to tight banking regulations and the limitations of the traditional banking industry in serving the community, and is alternative funding for MSMEs.

The results of this study can provide input for the government to continue to socialize in a variety of ways that are easy for ordinary people to understand about financial technology products or platforms and the importance of using existing fintech at this time, especially for SMEs. Hold a variety of training, the need for strong synergy and cooperation in developing the fintech system to improve the digital economic system at MSMEs. Regulations need to be updated with the development of innovations, the relevance of regulations is often inferior to the development of industries in Indonesia.

The limitations of this study only use the dependent variable financial inclusion. As for suggestions for future research, adding capital access variables and MSME performance or sustainability are linked to fintech.

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