



**Research article** 

# The Role of Financial Technology in Improving Financial Literacy for MSME Actors

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#### Abstract.

1. Introduction

MSMEs play a strategic role in improving a country's economy. This can be seen through the contribution of MSMEs in increasing Indonesia's GDP. As a pillar of the country's economy, MSMEs must adapt to financial technology for providing easier access to financial services so that the MSME actors can have financial literacy competencies. Therefore, this study examines the effect of financial technology on the financial literacy. The associative quantitative method is used for parsing research problems based on urgency. A survey was conducted on 100 respondents of MSME actors. The data analysis test was carried out with the instrument quality test stages, and various basic assumptions had been fulfilled so that the research results were not biased. A bivariate regression analysis method was used. The results show that financial technology have a significant effect on financial literacy.

Keywords: financial technology, financial literacy

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Currently, MSMEs have a strategic role in the Indonesian economy because of their position as a major player in economic activities in various sectors. Both locally in empowering small communities and in developing the country's economy, so that the role of MSMEs has an impact on economic development such as employment, reducing poverty, reducing unemployment and crime. MSMEs have different characteristics from companies because MSMEs are labor intensive and provide various kinds of basic needs for the community [1].

The progress of MSMEs needs special attention from various parties including the community, government and academics. Where the mindset, attitude patterns and patterns of action of various parties must concentrate on efforts to increase the competitiveness of MSMEs. To improve the quality of MSMEs, one of them is by increasing understanding of financial literacy. Where financial literacy is very helpful and contributes to efforts to improve in terms of effective financial management and will ultimately prosper the community.

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According to data obtained from research conducted by Ulfatun that the understanding of the Indonesian people about financial literacy shows a low level when compared to countries in Asia, namely the understanding of the Indonesian people by 21.8%, the Philippines 27%, Thailand 78% and Singapore 98% [1]. Based on these data, it shows that the low understanding of financial literacy causes the low utilization of financial services in Indonesia and affects financial decision making. Where is the understanding of financial literacy as knowledge about managing finances with the aim of improving welfare for business actors [2].

To be able to apply financial literacy effectively, MSME actors must also be able to access financial technology that is currently developing. Financial technology is actually not an old phenomenon that has emerged and is hotly discussed, especially when it is associated with financial access and other access for users as well as for the financial sector that needs to fulfill their needs. known by the name fintech. issue about fintech This has become a subject of discussion for the government, academics, the community, especially here, who are business actors in developing their businesses to be more advanced and bigger.

In reality, MSME actors still do not understand how to access financial technology such as difficulties in obtaining business capital, effective ways of transacting, and difficulties in expanding marketing networks [1]. All of these have an impact on improper financial management and ultimately lead to losses. So the likes and dislikes of MSMEs can be said to be still stagnant and unable to compete to a higher level.

The purpose of this study was to examine the effect of financial technology on financial literacy in MSME actors.

# 2. Literature Study

### 2.1. Definition of MSME

Micro, Small and Medium Enterprises are one of the drivers of the people's economy that are strong and able to show their existence in the business world according to Law No.20 of 2008 which means Micro, Small and Medium Enterprises, namely: [1] Micro Enterprises are productive businesses that can be driven by independent or a business entity that has an individual nature that has the criteria regulated in the law. [2] a small business is a productive business that can stand on its own, either independently or by an individual body that has the criteria regulated in the law. [3] medium-sized businesses are productive businesses that can stand alone, which are carried out by individuals or



groups that are owned and controlled by themselves in accordance with the provisions of the Law.

The criteria for small, micro and medium enterprises according to Rahmana, Arief are: 1) livelihood activities are SMEs that are chosen as job opportunities that provide welfare for the perpetrators. 2) micro-enterprises are micro-enterprises that have the nature of being created by themselves and only accept orders in small quantities. 3) medium-sized businesses are medium-sized business actors who have knowledge and understanding of entrepreneurship and can accept orders in small and medium quantities [4] large businesses are business actors who have knowledge and understanding of entrepreneurship and can accept jobs in small, medium and large numbers. big and smaller and wider marketing and transforming into big [2-4.

### **2.2. Financial Literacy**

Financial literacy is the ability to make judgments about information and make very effective decisions about how to manage finances. Financial literacy is the ability to manage finances intelligently for effective decision making [5-8].

# 2.3. Financial Technology

Financial technology can be defined as financial technology innovation in accessing financial services, financial technology is a technology-based financial service that produces business models, applications and products related to access to financial services that can be used by the public, especially by business actors who are engaged in financial services. This research is SMEs actors who are closely related to business development [3,4,8,9]

Financial technology indicators include: [1]. Peer to peer lending is a platform that brings together financiers and borrowers via the internet in conducting loan transactions or financing on credit in their transactions, [2]. Payment gateway is a payment system through a third party (third party payment system) in conducting payment transactions and [3]. Reseller is a form of e-commerce by conducting transactions and promotions through platforms on online social media [10,11].



# 3. Method

The population in this study is MSME actors, because this population is unknown, for sampling the researchers used the Cochran formula:

$$=\frac{z^2pq}{z^2}$$

- N = Number of samples required
- Z = The level of confidence required in the sample, which is 95%
- p = Probability of True 50%
- q = Probability of False 50%
- N= 98 rounded up to 100 respondents

The sample collection uses probability sampling with a random sample technique. The primary data collection process used a questionnaire to measure all the meanings of the variable indicators in accordance with the research objectives. The quality test on the instrument was carried out to determine whether the instrument used was able to measure what was intended to be measured, then the prerequisite test consisted of a normality test, heteroscedasticity test, linear test, followed by a data analysis test using bivariate regression.

Hypothesis:

H1 : Financial Technology affects Financial Literacy



Figure 1: Correlation between financial technology and financial literacy.

# **4. Research Result**

### 4.1. Validity Test

Test the Validity of Financial Technology and Financial Literacy

The results of the calculation of the validity of 26 questionnaire items to examine financial technology (Variable X) and financial literacy (Variable Y) with N = 100 can be seen in the following table :

Based on the table above, it is obtained that the calculated r value > critical value, the data on the Financial Technology variable on financial literacy is declared valid.



Variabel			R count	R Critical	Information
Peer to peer lending	PP 1	X1 FINANCIAL TECHNOLOGY	0,458	0,3	VALID
	PP 2		0,357	0,3	
	PP 3		0,672	0,3	
	PP 4		0,669	0,3	
	PP 5		0,569	0,3	
	PP 6		0,593	0,3	
Payment Gateway	PG 1		0,336	0,3	
	PG 2		0,542	0,3	
	PG 3		0,593	0,3	
	PG 4		0,599	0,3	
	PG 5		0,555	0,3	
Reseller	R 1		0,554	0,3	
	R 2		0,657	0,3	
	R 3		0,492	0,3	
	R 4		0,752	0,3	
	R 5		0,661	0,3	
Financial knowledge	FK 1	Y FINANCIAL LITERACY	0,649	0,3	
	FK 2		0,675	0,3	
	FK 3		0,523	0,3	
Financial Attitude	FA 1		0,596	0,3	
	FA 2		0,648	0,3	
	FA 3		0,603	0,3	
Financial Behaviour	FB 1		0,543	0,3	
	FB 2		0,515	0,3	
	FB 3		0,675	0,3	
	FB 4		0,536	0,3	

#### TABLE 1: Validity Test.

# 4.2. Reliability test results

The results of the calculation of the reliability of the questionnaire statement to measure the variables of Financial Technology (Variable x) and Financial Literacy (Variable y) are as follows:

Financial Technology Reliability Calculation Results

Cronbach's Alpha	N of Items
,861	16



#### Table 1.3

Financial Literacy Reliability Calculation Results

Cronbach's Alpha	N of Items
,799	10

Based on the results of calculations using SPSS (Statical Package for Social Science), the reliability value or Cronbach's Alpha value for the questionnaire that will be used to measure the accounting competence variable (Variable X) and village financial management (Variable Y) is 0.861 and 0.799 respectively.

## **4.3. Prerequisite Test Results**

### 4.3.1. Normality Test

A normality test is a data test to see whether the residual value is normally distributed or not (Imam Ghozali, 2011). The author uses the One-Sample Kolmogorov-Smirnov Test of Regressions Unstandardizes Residual, the following results are obtained :

		Unstandardized Residual
Ν		100
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	4,11936752
Most Extreme Differences	Absolute	,071
	Positive	,039
	Negative	-,071
Test Sta	,071	
Asymp. Sig. (2-tailed)		,200 <sup><i>c</i>,<i>d</i></sup>

TABLE 2: Normality Test.

Based on the table, it is stated that the data shows the significance value of Asymp. The sig

(2-tailed) is 0.200. So it can be concluded that the data is normally distributed, because the significance is greater than 0.05 (0.200 > 0.05)

Based on the table above, it can be seen that the data shows the significance value of Asymp. The sig (2-tailed) is 0.200. So it can be concluded that the data is normally distributed, because the significance is greater than 0.05 (0.200 > 0.05)



# 4.3.2. Heteroscedasticity Test

Heteroscedasticity test is a prerequisite test to determine whether in the regression model there is an inequality of variance from the residual of one observation to another observation.

	Model			Standardized Coefficients	Т	Sig.	
		В	Std. Error	Beta			
1	(Constant)	2,814	1,087		2,588	,011	
	Teknologi Keuangan	,017	,032	,054	,533	,595	
	a. Dependent Variable: RES2						

TABLE 3: Heteroscedasticity Test.

Based on the table above, it is stated above that the data shows the significance value (Sig) is 0.595. So it can be concluded that the tested data does not have heteroscedasticity symptoms, because the significance value (Sig.) is greater than 0.05.

#### **4.3.3.** Linearity test

The linearity test is a prerequisite test to determine the data pattern, whether the data pattern is linear or not. The results of the linearity test of the Financial Technology (X) and Financial Literacy (Y) variables can be seen from the following table:

			Sum of Squares	Df	Mean Square	F	Sig.
Literasi Keuangan * Teknologi Keuangan	Groups	(Combined)	1932,681	69	28,010	1,632	,069
		Linearity	767,596	1	767,596	44,726	,000,
		Deviation from Linearity	1165,085	68	17,134	,998	,518

TABLE 4: Linearity Test.

Based on the table above, it can be seen from Deviation From Linearity sig 0.518 > from 0.05, there is a significant linear relationship between the independent variable (X) and the dependent variable (Y).



### 4.3.4. Data Analysis Test Results

Regression analysis is useful to determine the magnitude of the influence of the Financial Technology variable (X) on the Financial Literacy variable (Y). are as follows :

TABLE 5: Simple Regression Analysis Test.

	Model			Standardized Coefficients	т	Sig.	
		В	Std. Error	Beta			
1	(Constant)	11,577	1,924		6,017	,000,	
	Teknologi Keuangan	,378	,056	,560	6,692	,000	
	a. Dependent Variable: Literasi Keuangan						

Based on the table above, a constant of 11,577 is obtained, meaning that the constant value of the financial technology variable is 11,577 if the financial literacy value is zero. The variable regression coefficient (X) of 0.378 states that for every 1 point addition to the value of financial technology, the value of financial literacy increases by 0.378.

### 4.3.5. Coefficient of Determination Analysis Test

The coefficient of determination is used to determine the percentage of the effect of the independent variable on the dependent variable. The results of the calculation of determination can be seen in the table below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	,560 <sup><i>a</i></sup>	,314	,307	4,14033			
a. Predictors: (Constant), Teknologi Keuangan							

 TABLE 6: Coefficient of Determination Analysis Test.

Based on the table above, it can be seen that the R Square value is 0.314. It can be concluded that the magnitude of the influence of financial technology (X) on financial literacy (Y) is  $0.314 \times 100\% = 31.4\%$ . While the remaining 68.6%. Influenced by other variables.

#### 4.3.6. Hypothesis test

Test the hypothesis in this study using the t test.

The results of partial hypothesis testing can be seen in the table below:



	Model	Unstandardized Coefficients		Standardized Coefficients	т	Sig.		
		В	Std. Error	Beta				
1	(Constant)	11,577	1,924		6,017	,000,		
	Teknologi Keuangan	,378	,056	,560	6,692	,000,		
	a Dapandant Variable: Literaci Koyangan							

TABLE 7: T Test.

a. Dependent Variable: Literasi Keuangan

Based on the table, it is stated that the results of the t-count hypothesis test are 6.017 and the significance value is 0.3. The t table value for the sample is 100 and DF = 98 (from the results of the n-2) calculation is 1.660, the calculated t value is 6.017 > t table 1.660 with a significance value of 0.000 greater than 0.05. then H1 is accepted that financial technology has a significant effect on financial literacy.

# **Authors' Contributions**

Chairperson : Data collection, data analysis, data processing, and reporting

Member 1: Help collect literature review, assist in setting research models, assist in formulating research

Member 2: Assist in setting research models, assist in processing data, help interpret processing results, assist in compiling research results

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# References

- [1] W. Suryandari and H. Muniroh, "LITERASI KEUANGAN DAN PENGARUHNYA TERHADAP KINERJA UMKM BATIK TULIS LASEM.," *Fokus Ekonomi: Jurnal Ilmiah Ekonomi*. vol. 15, no. 1, pp. 65–77, 2020.
- [2] S. Suryani, D.S. Ramadhan, F. Ekonomi, and U.I. Riau, "Analisis Literasi Keuangan pada Pelaku Usaha Mikro di Kota Pekanbaru.," COSTING: Journal of Economic, Business and Accounting. vol. 1, no. 1, pp. 12–22, 2017.



- [3] D.R. Ningsih, "PERAN FINANCIAL TECHNOLOGY (FINTECH) DALAM MEMBANTU PERKEMBANGAN WIRAUSAHA UMKM.," In: PROSIDING SEMINAR NASIONAL PENDIDIKAN PROGRAM PASCASARJANA UNIVERSITAS PGRI PALEMBANG. pp. 270–277. Universitas PGRI Palembang, Palembang (2020).
- [4] E.N. Sugiarti, N. Diana, and M.C. Mawardi, "PERAN FINTECH DALAM MENINGKATKAN LITERASI KEUANGAN PADA USAHA MIKRO KECIL MENENGAH DI MALANG.," Jurnal Ilmiah Riset Akuntansi. vol. 8, no. 4, pp. 90–104, 2019.
- [5] Arianti BF. The influence of income and financial behavior on financial literacy through investment decisions as intervening variables. Jurnal. Akuntansi. 2020;10(1):13–36. https://doi.org/10.33369/j.acuntansi.10.1.13-36
- [6] Rumbianingrum W, Wijangka C. The effect of financial literacy on MSME financial management. Jurnal Manajemen. and Business. 2018;2(3):155–65.
- [7] Herdinata C, Pranatasari DF. Guidelines for the application of financial technology through regulation, collaboration, and financial literacy in MSMEs. Leutika Press; Yogyakarta; 2019.
- [8] Dara SR, Mariah M. Financial literacy in communities in Jakarta. Accuracy J. Ris. Account. and Finance. 2020;2(3):127–38.
- [9] Amir H, Dadang S. Level of financial literacy and financial technology in business actors. Jurnal Ilmu manajemen; 2019;5:97–108.
- [10] F. Lionetto, S. Pappadà, G. Buccoliero, and A. Maffezzoli, "Finite element modeling of continuous induction welding of thermoplastic matrix composites.," *Materials & Design*. vol. 120, pp. 212–221, 2017.
- [11] F.E. Wulandari, "PEER TO PEER LENDING DALAM POJK, PBI DAN FATWA DSN MUI.," Ahkam: Jurnal Hukum Islam. vol. 6, no. 2, p. 2018.