The Effect of Financial Literacy and Financial Technology on MSME Profits

(Survey on MSMEs in Bandung)

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ABSTRACT

At the beginning of 2020, the world was hit by a disaster of the Covid-19 pandemic. It has changed human life including business activities, MSMEs are no exception. Many business owners are closing their businesses due to the situation. MSME owners, therefore, need to acknowledge what can be done to generate profits and maintain their businesses. In this modern era, financial literacy and financial technology are important factors that can help MSME owners to achieve the expected profits and provide services to consumers to make buying and selling transactions more easily and quickly. However, until now, there are still many MSME owners who do not have an understanding of financial literacy and have not implemented fintech in their business. Therefore, the authors intend to examine the extent of financial literacy and financial technology influencing MSME profits in the city of Bandung. It is motivated by the large population of MSMEs and the low continuity of MSME business in this city. Many MSME owners are at the beginning of starting their business but not long after that, they close their business. This study used a quantitative descriptive method and the sample populations were 100 MSME owners in the city of Bandung. The data were collected through the distribution of online questionnaires and analyzed using the multiple linear regression method. The results prove that financial literacy significantly has a positive impact on MSME profits. Fintech gives the same result and also contributes to a simultaneous effect on MSME profits.

Keywords: *Financial literacy, Fintech, MSME profits, Covid 19, MSMEs in Bandung.*

1. INTRODUCTION

Today people's lives worldwide have been muchly affected by the Covid-19 pandemic. The virus is dangerous and the transmission is very fast beyond the capabilities of existing health technology. This of course has a huge impact on the global economy, including business activities, and MSMEs are no exception. Many business actors are forced to close their businesses because activities in the service and production sectors have decreased due to large-scale social restrictions. Whereas, based on data recorded at the Indonesian Ministry of Finance, MSMEs contribute the most significant impact on the business world. They have a contribution of 60.3% of the total Gross Domestic Product (GDP) of Indonesia. Therefore, MSMEs can actually help the country develop its economy. Bandung is one of the cities in Indonesia that have experienced a lot of increase and development in the number of MSMEs. However, currently, these MSMEs experience problems caused by the Covid 19 pandemic which has limited their access and resources.

According to [1], MSME actors from the beginning of the pandemic experienced a decrease in demand and a decrease in turnover on a large scale. MSMEs, in general, experienced a 70% decline in sales which also affected the profits generated. This is reinforced by the results of research conducted by [2] which explains that traders' groceries have decreased income up to 75% and merchant vegetables decreased by 75% during this pandemic.

These problems make it difficult for MSMEs to maintain their business continuity. Therefore, MSME owners are expected to have the ability to increase awareness of the importance of financial literacy for the sustainability of their businesses. Financial literacy is considered important in various countries because they

want to shape the mindset of the people so that they have good thoughts about the quality of finance. When people are able to manage their finances, it will bring a positive impact in developing the economy of society, especially in Indonesia.

Financial literacy is accompanied by the rapid development of technology. In Indonesia, the development of technology has entered various sectors, including the financial sector, which results in a technological innovation called financial technology. Financial technology appears to support financial services as a means of payment, a loan tool, and other needs. Currently, many business owners are already using financial technology since they want to provide convenience in serving consumers and run their business quickly and easily without any strict restrictions and rules. The presence of financial technology provides enormous benefits for MSME owners including facilitating access to financial products and assisting them in improving financial literacy.

According to [3], MSMEs still bear weaknesses in increasing their capacity, such as lacking business capital, both the quantity and resources in the company, and lacking managerial capabilities as well as operational skills. Therefore, this financial technology can be a solution. Financial technology can be used as business capital financing that can increase business income. Financial literacy and financial technology are able to help MSME actors in managing finances and marketing their products during the Covid-19 pandemic. Thus, this research is conducted to see how financial literacy and financial technology influence the profits of MSMEs in Bandung.

2. OBJECTIVES

This study aims to measure the influence of financial literacy and financial technology in generating the profits of MSMEs. The results will provide new insights for MSME owners that the issue of financial literacy and financial technology is important to assist company managers in increasing profits.

2.1. Theoretical framework

According to [4], financial literacy is the concept of one's understanding of financial products. It talks about a person's skills in general financial matters, including financial planning, management, and allocation. Better financial literacy will increase company profits since proper use of financial literacy will help business owners plan, manage, and allocate the funds well to get profits as expected. It is in line with research conducted by [5], which explains that financial literacy affects profits.

According to [6], there are significant differences in the income and net income obtained by MSMEs before and after using fintech. The application of fintech in MSMEs can help them obtain business capital loans from banks because capital is the main factor that MSMEs need to carry out their business activities. It is shown that after the implementation of fintech, it is easier for MSME actors to obtain capital loans for their business, and indirectly it affects the amount of income and net profit that MSMEs will get in the future. However, [5] finds that financial technology has no effect on profits.

Research and operation variables are as follows:

(a) Financial Literacy (X_1) is the understanding and ability to manage personal finances and an understanding of savings, insurance, and investment [7].

(b) Financial Technology (X_2) is a combination of financial services and technology that can change conventional business models to moderate ones. Initially, transactions are carried out face to face using cash while currently, payment transactions can be carried out remotely using quick non-cash methods [5].

(c) According to [8], the formation of profit is as follows: (1) revenue: cash flows on the value of assets in an entity originating from the production of goods and providing services or activities, (2) expense: cash flows of values derived from providing goods or carrying out ongoing corporate operations of an entity, (3) gain: the increase in equity arising from peripheral or incidental transactions from other transactions or other situations affecting the entity except those obtained from the income of owners' investments, and (4) loss: decrease in equity or assets resulting from peripheral or incidental transactions from other transactions or other situations affecting the entity except releases or distributions to owners.

Based on this description, this study proposes the following hypotheses:

H_1: Financial literacy significantly owns a positive impact on profit.

H_2: Financial technology significantly owns a positive impact on profit.

H_3: Financial literacy and financial technology simultaneously own a significant positive impact on profit.

3. METHODOLOGY

This study attempts to see the influence of financial literacy and financial technology in increasing the MSMEs' profits. The data were collected by distributing online questionnaires through the Google Form service to participants, the MSME owners in the city of Bandung. The sample size was determined using the Lemeshow formula which resulted in 100 participants who were involved in this study. Further, this study employed a scoring instrument of the Likert scale. The data were

analyzed using the quantitative descriptive method by applying a statistical tool, namely SPSS version 26.

4. RESULTS

4.1. Respondent Profile

Respondents in this study are 100 MSME owners from Bandung, Indonesia. The following is the classification of respondents based on gender and age.

Table 1. Respondent category based on gender

	Profile	Amount	Percentage
Gender	Male	36	36,0%
	female	64	63,0%
TOTAL		100	100%

Based on table 1, it can be seen that the questionnaire was filled out by 36 male respondents (36,0%) and 64 female respondents (64,0%). The respondents in this study, therefore, are dominated by females.

Table 2. Respondent category based on age

	Profile	Amount	Percentage
Age	< 25	34	34,0%
	26-35	10	10,0%
	36-45	20	20,0%
	46-50	18	18,0%
	>50	18	18,0%
TOTAL		100	100%

Source: processed data, 2021

Based on table 2 it can be seen that the questionnaire was filled out by 34 respondents of > 25 years old, 10 respondents aged between 26-35 years old, 20 respondents aged between 36-45 years old, 18 respondents aged between 46-50 years old, and 18 respondents aged above 50 years old.

4.2. Validity Test Result

Table 3. Validity Test

Variable	Item	R Count	R Tabel	Descrption
Financial Literacy (X1)	X1.1	0.722		Valid
	X1.2	0.761		Valid
	X1.3	0.748		Valid
	X1.4	0.576		Valid
	X1.5	0.629		Valid
	X1.6	0.528	0.1975	Valid
	X1.7	0.677		Valid
	X1.8	0.702		Valid
	X1.9	0.546		Valid
	X1.10	0.741		Valid
	X1.11	0.494		Valid
	X1.12	0.624		Valid

Variable	Item	R Count	R Tabel	Descrption
Financial Technology (X2)	X2.1	0.580		Valid
	X2.2	0.772		Valid
	X2.3	0.69		Valid
	X2.4	0.818		Valid
	X2.5	0.676		Valid
	X2.6	0.853		Valid
	X2.7	0.898		Valid
	X2.8	0.861		Valid
	X2.9	0.859		Valid
	X2.10	0.874		Valid
	X2.11	0.883		Valid
	X2.12	0.833		Valid
Profit (Y)	Y.1	0.638		Valid
	Y.2	0.818		Valid
	Y.3	0.793		Valid
	Y.4	0.532		Valid
	Y.5	0.537		Valid
	Y.6	0.675		Valid
	Y.7	0.637		Valid
	Y.8	0.642		Valid
	Y.9	0.661		Valid
	Y.10	0.561		Valid
	Y.11	0.616		Valid
	Y.12	0.625		Valid
	Y.13	0.720		Valid
	Y.14	0.744		Valid

Based on Table 3, the results of the validity test show that all question items have a correlation value (r count) above 0.1975 (r table). Thus, all statement items in this study are valid and can be used to measure the variables studied.

4.3. Reliability Test Results

The reliability test used SPSS version 26 and the steps were similar to the validity test because both outputs appeared simultaneously. The questionnaire is considered reliable if Cronbach's alpha > 0.60. The following are the results of the reliability test.

Table 4. Reliability test of system quality variables (X1)

Variables	Cronbach's Alpha	N of Items
X1	0,901	12
X2	0,946	12
Y	0,897	14

Source: processed data, 2021

Table 4 shows that the statistical results of the reliability test on the X1 variable, X2 variable, and Y variable variants have a Cronbach's alpha value > 0,60. Therefore, all variables in this study are reliable.

4.4. Multicollinearity Test

The multicollinearity test was carried out to test the regression model that connects the independent variables. Multicollinearity measurement can be seen from the Tolerance value of > 0.10 and the VIF value of < 10.

In this multicollinearity, the Variance Influence Factor (VIF) and tolerance values for each variable are as follows:

Table 5. Multicollinearity Test

Coefficient's

		Tolerance	VIF
1	(Constant)		
	Financial Literacy (x1)	0,652	1.533
	Financial Technology (X2)	0,652	1.533
a. Dependent Variable: Profit (Y)			

Source: Processed data, 2019

Table 5 shows that the result of tolerance value of the multicollinearity test toward financial literacy and financial technology variables is 0,652. The VIF value is 1.533. It means multicollinearity does not exist between the independent variables as the tolerance > 0.10 and VIF < 10.0.

The scatterplot graph is attached below for the analysis of heteroscedasticity testing. It is used to see a graph plot between dependent predicted values and residual variables.
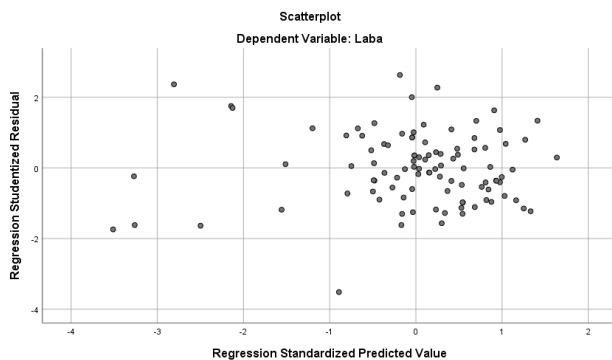

Figure 1. Scatterplot heteroscedasticity test

Figure 1 shows that the dots spread randomly, both above and below 0 on the Y-axis, and do not form a clear pattern. Thus, it can be said that the data are free from heteroscedasticity symptoms.

4.5. Test of Multiple Regression Equations

The multiple Linear Regression test was conducted to see the correlation between independent variables (X). Table 5 shows the results of the Multiple Regression Test processed using SPSS version 26 application.

The authors formulated a regression equation that explains the effect of financial literacy and financial technology on profits, that is:

$Y = 11.759 + 0{,}379X_1 + 0{,}355X_2 + e$
$Y = $ Profit
$X_1 = $ Financial literacy
$X_2 = $ Financial technology

The function can be interpreted as follows:

1)   Constants (a)

The constant value is 11,759, which means that the profit will be worth 11.759 units if the independent variable does not exist.

2)   Financial Literacy (X_1) on profits.

The System Quality coefficient value is 0.379. It means every time there is an increase in financial literacy by one percent with the assumption that other variables are constant, profits will increase by 0.379 percent.

3)   Financial Technology (X_2) on profits.

The System Quality coefficient value is 0.355. It means every time there is an increase in financial technology by one percent with the assumption that other variables are constant, profits will increase by 0.355 percent.

Table 6. Multiple regression test results

Coefficient's

Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t
1	(Constant)	11.789	3.607		3.269
	Financial Literacy (X_1)	.379	.094	.374	4.050
	Financial Technlogy (X_2)	.355	.085	.387	4.194

4.1.6. Partial Hypothesis Test

The T-test was conducted to determine the effect of the independent variable (X) on the dependent variable (Y). The test was performed using the SPSS 26 tool andthe results can be seen in the table below.

Table 7. T-test results

	T count	Sig.	T table	Note
Financial Literacy (x1)	4.050	.000	1.661	H1: Accepted & Significant
Financial Technology (X2)	4.194	.000	1.661	H2: Accepted & Significant

Based on Table 7, it can be seen that:

1. Financial literacy has a t-count value of 4.050 > t-table 1.661 and a significance value of $0.000 < 0.05$. Based on these results, H_0 is rejected and H_1 is accepted, indicating that perceived financial literacy has a positive impact on generating profits.

2. The financial technology variable has a t-count value of 4.194 > t-table 1.661 and a significance value of $0.000 < 0.05$. Based on these results, H_0 is rejected and H_2 is accepted, indicating that financial technology has a positive impact on generating profits.

4.7. Simultaneously Hypothesis Test

The F-test was conducted to determine the simultaneous effect of the independent variable (X) on the dependent variable (Y). The F-test was carried out using SPSS 26 and the results can be seen in the table below.

Table 8. F-test results

ANOVAa					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3185,247	2	1592,624	41.412	.000b
Residual	3730,393	97	38,458		
Total	6915,640	99			
a. Dependent Variable: Profit MSME Y					
b. Predictors: (Constant), Financial Technology X2, Financial Literacy _X1					

Based on Table 8, it is obtained that the significance of the F test is 0.000 0.05 and has a calculated F value of 41.412 > F table 3.09. It shows that financial literacy and financial technology have a simultaneous influence on profits. Thus, it can be said that H_0 is rejected and H_3 is accepted.

5. DISCUSSION

The T-test shows that if significant value < 0.05 and t count > t table, it means that the independent variable (X)

partially has a positive and significant effect on the dependent variable (Y), then H_0 is rejected and H_1 accepted. Variable financial literacy (X_1) has a significant value < 0.05 and the value of t count > t table (4.050 > 1.661). Based on the above results, it is found that the majority of MSME owners agree that an understanding of financial literacy can help managers generate profits. Several businesses immediately adapt their business during the COVID-19 pandemic by understanding the concepts of financial literacy and make financial literacy very important. Understanding good financial literacy makes it easier for MSME owners to know the value of money and how to optimize it during the COVID-19 pandemic to generate a big impact for the future. Financial literacy helps MSME actors improve their management and accountability. This can make it easier for MSME managers to make financial decisions in their business. Further, the businesses will gain sustainability in the future.

Based on the T-test results, it is known that the financial technology variable (X_2) has a significant value of < 0.05 and the value of t cont > t table (4.194 > 1.661). It shows that the majority of MSME owners agree that financial technology can help them in generating profits. Several businesses immediately adapt their business during the COVID-19 pandemic by changing the business environment. The businesses were previously run conventionally, now they choose to market their product online. Business actors have begun to adapt in their business by starting to accept cashless payment systems or non-cash payments such as debit and credit cards, electronic money, and e-wallet. This cashless payment is used to facilitate transactions and avoid the spread of the COVID-19 virus because consumers feel generally safer and more comfortable shopping online from home. This of course can make it easier for MSME owners to increase their sales online in an effort to generate profits of their business.

Finally, based on the results of the F-test, the calculated F count > F table (41.412 > 3.09) with a significant value < 0.05, then H_0 is rejected and H_3 is accepted. It means that financial literacy and financial technology simultaneously have a positive and significant effect on profits.

6. CONCLUSION

This study used 100 respondents of MSME owners from Bandung, Indonesia. The indicator test using SPSS version 26 shows that financial literacy and financial technology are stated as one of the factors in generating profits for MSMEs. This study finds that financial literacy has a positive and significant effect on profits with a T count value of 4.050 with T table 1.661 and significant 0.000. Besides, financial technology has a positive and significant effect on profits with a T count value of 4.194 with T table

1.661 and significant 0.000. In a conclusion, both financial literacy and financial technology simultaneously give a positive and significant effect on profits with a calculated F count of 41.412 with an F table value of 3.09 and a significant value of 0.000.

7. RECOMMENDATIONS

7.1. For MSME owners/manager

It is hoped that MSME owners/managers in the city of Bandung can get an insight into financial literacy because it can be useful for assisting them. They are also expected to be able to apply financial technology in their business in order to make profits.

7.2. For Further Researchers

Future researchers are hoped to develop or add other variables that can affect profits in MSMEs. Besides, they are also expected to add the number of samples in research to obtain better results.

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