



## Financial inclusion as mediating influence of financial literacy on performance of UMKM in Tanggulangin sub-district

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### ABSTRACT

MSMEs play an important role in creating jobs, especially in rural and urban areas that have high unemployment rates. However, MSMEs also face several challenges, including limited access to capital, limited knowledge and skills. Financial inclusion plays a key role in the performance of MSMEs. Financial inclusion refers to wider access to financial services, such as banking, insurance, and other financial instruments. This study aims to determine the mediating role of financial inclusion on the effect of financial literacy on MSME performance. This research can be classified as quantitative research using the path analysis method. The data collection technique used was a questionnaire using a 5-score Likert scale. The population of this study were MSME players in Tanggulangin, Sidoarjo Regency who had registered with the cooperative and MSME offices in 2023. To determine the sample taken, non-probability sampling was used, and in the sampling method Accidental Sampling was used. The number of samples studied was 63 respondents. The results showed that the financial literacy variable had a negative and significant effect on MSME performance, the financial literacy variable had a positive and significant effect on financial inclusion, and the financial inclusion variable had a positive and significant effect on MSME performance. In the intervening variable, financial inclusion has a positive and significant effect in mediating financial literacy on the performance of Tanggulangin sub-district MSMEs.

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## INTRODUCTION

Trade in goods can help the economic growth of a country, there are various types of businesses, such as small and medium enterprises that can strengthen the economy of a country and be able to help it grow for the better. Based on the Office of Cooperatives and MSMEs of East Java Province in 2023, the number of MSMEs in East Java is 1,153,576 MSMEs, and the sidoarjo area has a total of 1443 MSMEs registered with the Office of Cooperatives and MSMEs in 2023. Based on data from

Tanggulangin sub-district in 2023, there are 63 MSMEs consisting of the food sector (43 MSMEs), beverages (6 MSMEs), craft (9 MSMEs), and services (5 MSMEs).

Small businesses in Indonesia play an important role in helping the country grow, the contribution of MSMEs to the economy is getting bigger. The lack of knowledge will have an impact on MSME players not knowing how to find customers to attract buying interest in their products and how to promote their business, this can make it difficult to grow and become more successful (Dewi & M. Trihudyatmanto, 2020). Most small businesses in Indonesia have difficulty understanding and managing MSME finances. This can make it difficult for business owners to grow their business. It is important for these small business owners to learn how to handle finances to achieve success (Ambarwati & Zuraida, 2020). Ariningrum (2020) says that basic knowledge of financial processing means understanding how to handle finances and make good decisions, this knowledge helps business people manage their own finances and make the right choices.

Financial literacy is about understanding finance and how to use it wisely (Anisyah et al., 2021). Many factors affect financial literacy, one of which is financial inclusion. Andriyani & Sulistyowati (2021) state that financial inclusion is access to various financial institutions, products and services according to the needs and abilities of the community to improve people's welfare. This is able to affect the performance of umkm. SME performance is the result of work achieved by SMEs and adjusted to the role or task of SME goals, the results of this work are achieved within a certain period of time which is associated with a certain measure of value or criteria (Pramestiningrum & Iramani, 2020).

According to Yanti (2019), financial inclusion is all efforts made to overcome the obstacles that arise in society in accessing financial institutions. Financial inclusion refers to efforts aimed at removing all obstacles for people to access financial services (Fajri et al., 2021). Based on research by Kusuma (2019) financial inclusion is a state in which the number of people who have access to banking is low. People. Financial inclusion plays an important role in supporting the performance of MSMEs (Nainggolan, 2023). Based on research by Dahrani et al., (2022) financial inclusion is basically an effort that aims to minimize the form of barriers, both price and non-price in nature to community access, in order to take advantage of financial services. Financial inclusion is the ease with which individuals and businesses to have access to useful and affordable financial products and services to meet their needs in a responsible manner (M. Kusuma et al., 2021)

Based on research by Prakoso (2020), it states that financial literacy has a positive and significant effect on the performance of MSMEs. Meanwhile, according to Naufal & Purwanto (2022) financial literacy has a negative effect on the performance of MSMEs in Jember Regency. According to Rahman et al., (2021) financial literacy is the ability to understand and evaluate financing options, prepare for the future, and respond appropriately to situations, financial literacy also provides individuals with successful experiences in carrying out economic activities through increased savings, good purchasing decisions, proper investment, land management, job security, debt reduction, and increased financial well-being. According to Saputro et al., (2022) financial literacy is the ability to read, analyze, manage and communicate financial situations that affect one's welfare. Financial literacy refers to the knowledge and skills related to financial management in order to develop themselves towards a better and prosperous life in the future Santiarra & Sinarwati (2023). Based on research by Rumbianingrum & Wijayangka (2018) financial literacy is the ability to evaluate new and complex financial instruments, and to make judgments on financial instruments. Based on previous research conducted by Sari & Kautsar (2020) states that financial literacy has a positive effect on financial inclusion. Another study conducted by Pulungan & Ndururu (2019) states that financial literacy has a positive and significant effect on financial inclusion.

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activities through increased savings, good purchasing decisions, proper investment, land management, job security, debt reduction, and increased financial well-being. According to Saputro et al., (2022) financial literacy is the ability to read, analyze, manage and communicate financial situations that affect one's welfare. Financial literacy refers to the knowledge and skills related to financial management in order to develop themselves towards a better and prosperous life in the future (Santiara & Sinarwati, 2023). According to Rohmah & Gunarsih (2021) the results of the analysis show that financial literacy has a significant positive effect on financial inclusion. Another study conducted by Sanistasya et al., (2019) states that financial literacy has a positive and significant effect on the performance of MSMEs in East Kalimantan.

The research gap in this study is based on empirical studies found by Rahayu & Musdholifah (2017). the results of the analysis show that financial literacy has a positive effect on the performance of MSMEs in Surabaya. Meanwhile, according to Naufal & Purwanto (2022) financial literacy has a negative effect on the performance of MSMEs in Jember Regency.

Based on the gaps in the research, this study develops the scope of research, namely the addition of financial inclusion variables as an element of novelty in this study using a quantitative approach. The benefits of this research are expected to provide knowledge about financial literacy and financial inclusion to improve the performance of MSMEs, as well as minimize MSME actors in making incorrect decisions in order to avoid losses and excessive credit, because many umkm business actors in tanggulangin sub-district have experienced a decline in umkm performance due to lack of knowledge about MSMEs.

## RESEARCH METHOD

This type of research is quantitative, the data collection method uses a structured questionnaire given to respondents and measured using a 5-point Likert scale. Because of the mediation between the independent variable and the dependent variable that affects it, this study uses a method called path analysis. In this study, the survey population is MSMEs in Tangulangun sub-district. Based on the records of the Tangulangun sub-district office, there are 63 MSMEs. The sampling method used in this research is non-probability sampling. The number of samples investigated was 63 sectors. The data analysis method used in this research is the SmartPLS 4.0 application program. To ensure unbiased data, validity and reliability checks are carried out.

## RESULTS AND DISCUSSIONS

### Descriptive statistics

#### Convergent Validity

Convergent validity uses the outer loading value. measurement scale loading values of 0.5 to 0.6 are considered sufficient to qualify for convergent validity (Chin, 1998). The following is the outer loading value of each indicator on the research variables:

**Table 1.** Outer Loading Value

Variables	Indicator	Outer Loading
Financial Literacy (X)	X.1	0.759
	X.2	0.651
	X.3	0.741
	X.4	0.778
	X.5	0.705
	X.6	0.885
	X.7	0.761
	X.8	0.691
MSME Performance	Y.1	0.768
	Y.2	0.901
	Y.3	0.877
	Y.4	0.808

(Y)			
Financial Inclusion (Z)		Z.1	0.536
		Z.2	0.768
		Z.3	0.783
		Z.4	0.770
		Z.5	0.554
		Z.6	0.765
		Z.7	0.762
		Z.8	0.755

Based on the table above, it is known that each indicator of the research variable has many outer loading values > 0.5, so that all indicators are declared feasible or valid for research use and can be used for further analysis.

**Table 2. Cross Loading**

Indicator	Financial Literacy (X)	MSME Performance (Y)	Financial Inclusion (Z)
X.1	<b>0.759</b>	0.353	0.501
X.2	<b>0.651</b>	0.222	0.439
X.3	<b>0.741</b>	0.219	0.373
X.4	<b>0.778</b>	0.424	0.449
X.5	<b>0.705</b>	0.188	0.309
X.6	<b>0.885</b>	0.360	0.484
X.7	<b>0.761</b>	0.429	0.362
X.8	<b>0.691</b>	0.266	0.273
Y.1	0.186	<b>0.768</b>	0.507
Y.2	0.340	<b>0.901</b>	0.642
Y.3	0.316	<b>0.877</b>	0.645
Y.4	0.545	<b>0.808</b>	0.688
Z.1	0.292	0.421	<b>0.536</b>
Z.2	0.398	0.556	<b>0.768</b>
Z.3	0.352	0.617	<b>0.783</b>
Z.4	0.530	0.536	<b>0.770</b>
Z.5	0.297	0.451	<b>0.554</b>
Z.6	0.382	0.536	<b>0.765</b>
Z.7	0.328	0.612	<b>0.762</b>
Z.8	0.510	0.536	<b>0.755</b>

Based on the data presentation in the table above, it can be seen that each indicator on the research variable has the largest cross loading value compared to the cross loading value on other variables. Based on the results obtained, it can be stated that the indicators used in this study have good discriminant validity in compiling the variables. Discriminant validity can also be known through other methods, namely by looking at the average variant extracted (AVE) value of each indicator, which is required to be > 0.5 for a good model.

**Table 3. average variant extracted (AVE)**

Variables	AVE (Average Variance Extracted)	Description
Financial Literacy (X)	0.516	Valid
MSME Performance (Y)	0.706	Valid
Financial Inclusion (Z)	0.562	Valid

Based on the table above, each variable in this study has a value of > 0.5 each. This shows that each variable in this study can be said to be valid in terms of discriminant validity.

### Composite Reliability

Composite reliability is the part used to test the reliability value of indicators on a variable. A variable can be declared to meet composite reliability if it has a composite reliability value > 0.7. The following is the composite reliability value of each variable used in this study:

**Table 4. Composite Reliability**

Variables	Composite Reliability
Financial Literacy (X)	0.872
MSME Performance (Y)	0.870
Financial Inclusion (Z)	0.900

From the table above, it can be shown that the composite reliability value of all research variables is > 0.7. This shows that each variable has met the composite reliability so that it can be concluded that all variables have a high level of reliability.

### Cronbach Alpha

Variables can be declared reliable or meet Cronbach alpha if they have a Cronbach alpha value > 0.7. The following is the Cronbach alpha value of each variable:

**Table 5. Cronbachs Alpha**

Variables	Cronbachs Alpha
Financial Literacy (X)	0.862
MSME Performance (Y)	0.860
Financial Inclusion (Z)	0.888

Based on the table above, it shows that the Cronbach alpha value of all variables in this study is above > 0.7, which means that the Cronbach alpha value has met the requirements so that all constructs can be said to be reliable.

### Structural Model Analysis

#### R-Square

R-Square is a measure of the proportion of variation in the value of variables that are influenced and can be explained by the variables that influence it. This is useful for predicting whether the model is good / bad. According to Chin (1998) the R-Square value criterion is 0.67 as strong, 0.33 as moderate, and 0.19 as weak.

**Table 6. R-Square**

Variables	R-Square	R-square adjusted
Financial Inclusion (Z)	0.286	0.286
MSME Performance (Y)	0.543	0.542

Based on the table above, R-Square is used to see the magnitude of the variable influence. The adjusted R-square value on the financial literacy variable on MSME performance is 0.542 or 54.2%, so it can be said that this relationship is a strong relationship. The adjusted R-square on the financial literacy variable on Financial Inclusion is 0.286 or 28.6%, so it can be said that this relationship is a moderate relationship.

$$\begin{aligned}
 Q\text{-Square} &= 1 - [(1 - R21) \times (1 - R22)] \\
 &= 1 - [(1 - 0,542) \times (1 - 0,286)] \\
 &= 1 - (0,458 \times 0,714) \\
 &= 1 - 0,130
 \end{aligned}$$

= 0,870

Based on the research results above, it can be assessed that the Q-Square is 0.870. This value explains the diversity of the research data can be explained by the research model by 87%, while the remaining 13% is explained by other factors that are outside this research model. Thus, from the results of these calculations, this research model can be stated to have good goodness of fit.

### Path Coefisien

#### Direct Effect

The purpose of direct effect analysis is useful for testing the hypothesis of the direct effect of a variable. If a variable has a p-value of less than 0.05, it is said to be significant and a variable that has a p-value greater than 0.05 is said to be insignificant.

**Table 7. Direct Effect**

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statics ( O/STDEV )	P value	Description
Financial Literacy (X) -> MSME Performance (Y)	0.028	0.044	0.128	0.223	0.824	Negative
Financial Literacy (X) -> Financial Inclusion (Z)	0.546	0.569	0.071	7.673	0.000	Positive
Financial Inclusion (Z) -> MSME Performance (Y)	0.731	0.732	0.102	7.141	0.000	Positive

#### Indirect Effect

The purpose of indirect effect analysis is useful for testing the hypothesis of the indirect effect of a variable that affects the affected variable and is mediated by an intervening variable. If the variable has a p-value of less than 0.05 it is said to be significant and a variable that has a p-value greater than 0.05 is said to have no effect.

**Table 8. Indirect Effect**

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values	Description
Financial Knowledge (X) -> Financial Behavior (Z) -> Financial Distress (Y)	0.452	0.477	0.076	5.979	0.000	Positive

## CONCLUSION

Financial literacy helps MSME actors to gain knowledge about business finance. However, this does not affect the performance of MSMEs, because not all of them implement it properly and correctly as needed, many MSME actors want to develop their business, but they are hindered by capital. With this financial inclusion to develop their business through borrowing capital from the right financial services, not only financial capital. In financial inclusion, business actors also gain knowledge about access to transactions, use, and quality of financial services to make it easier to manage businesses. With this it can be concluded that financial inclusion can affect the performance of MSMEs.

The results of this study state that financial literacy variables have a negative and significant effect on MSME performance, financial literacy variables have a positive and significant effect on financial inclusion, and financial inclusion variables have a positive and significant effect on MSME performance. In mediating the financial inclusion variable has a positive and significant effect in mediating financial literacy on the performance of MSMEs in Tanggulangin sub-district.

The limitation in this study is that the intervening variable has a positive influence in moderating the independent variable on the dependent variable in this study by only 87%, while the remaining 13% is explained by other factors outside the research model. The implication of financial inclusion research as mediating the effect of financial literacy on umkm performance in tanggulangin sub-district is as one of the useful research for umkm to develop businesses through financial inclusion for better umkm performance, many umkm business actors in tanggulangin sub-district have experienced a decline in umkm performance due to lack of knowledge about MSMEs with good financial literacy and financial inclusion, umkm performance will increase. The contribution of this research is that the results of this study are expected to provide knowledge for umkm as a reference in managing umkm in tanggulangin sub-district, so as to avoid bankruptcy.

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