

## **Financial Literacy, Financial Technology, and Business Performance: Does Financial Inclusion Mediate?**

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### **Abstract**

This study aims to examine the influence of Financial Inclusion in mediating the impact of Financial Literacy and Financial Technology on the Business Performance of Micro, Small, and Medium Enterprises (MSMEs) in Padang City. This study uses a quantitative research method with a non-probability sampling technique. The study was conducted by distributing questionnaires to 115 respondents who were micro, small, and medium enterprises in Padang City. Data processing was carried out using Smart PLS (Partial Least Squares) software. The results of the study indicate that, Financial Literacy has a positive and significant effect on Business Performance of MSMEs in Padang City Financial Technology has a negative but insignificant effect on Business Performance of MSMEs in Padang City Financial Inclusion has a positive and significant effect on Business Performance of MSMEs in Padang City Financial Literacy has a positive effect on Financial Inclusion of MSMEs in Padang City. Financial Technology positively and significantly affects Financial Inclusion. Financial Inclusion does not mediate the effect of Financial Literacy on Business Performance of MSMEs in Padang City. Financial Inclusion mediates the influence of Financial Technology on the Business Performance of MSMEs in Padang City.

Keywords: MSMEs, Financial Literacy, Financial Technology, MSME Performance, Financial Inclusion.

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### **1. Introduction**

Micro, Small and Medium Enterprises (MSMEs) are an integral part of the community economy that have a strategic position, role, and potential. Improving the performance of MSMEs can create a balanced, developing, and equitable national economic structure. In this case, the expansion and improvement of MSME performance is also the main key to achieving inclusive and sustainable economic growth [1]. This economic development is manifested in the number reaching 99% of all business entities. The contribution of MSMEs to Gross Domestic Product (GDP) also reaches 61%, equivalent to around IDR 9,580 trillion each year and absorbing 117 million workers, which is 97% of the total workforce [2].

The Micro, Small, and Medium Enterprises (MSMEs) sector is one of the largest job providers and contributes significantly to reducing the unemployment rate in Indonesia [3]. The growth of MSMEs in Indonesia plays a key role because MSMEs can absorb labor, create new job opportunities, and increase income, especially for the community [4]. Based on data obtained from the West Sumatra Central Statistics Agency, Padang City is the city with the largest number of MSMEs compared to other districts/cities. This condition can be explained by the status of Padang City as the Provincial Capital with the highest population compared to other districts/cities in West Sumatra [5]. Along with the growth in the number of MSMEs, it is necessary to be accompanied by the growth of the performance of the MSMEs themselves. However, the increase in the number of MSME actors

still leaves several problems, including MSME actors in Indonesia still have performance problems.

According to Moeheriono in [6], performance can be defined as a description of the implementation of program activities or policies achieved as an effort to realize the goals, objectives, vision, and mission that are seen in the strategic planning of an organization. In general, MSMEs often face delays in their development, which are caused by several conventional problems that have not been fully resolved. Factors such as a lack of human resource capacity, ownership, financing, marketing, and various other problems related to business management are often obstacles for MSMEs to compete with large companies. Therefore, strategic efforts are needed to increase the growth of MSME performance.

According to Rahmawati et al. [7], good management of MSME performance will certainly have an impact on performance, as seen from the findings of the comprehensive performance assessment analysis, which sufficiently illustrates the success and growth of MSMEs. Given that MSMEs themselves are expected to be able to grow bigger to become the backbone of the national economy. One important effort to improve the performance of MSMEs is to enrich the knowledge of MSME actors regarding financial aspects, so that business financial management can develop well.

According to Martono and Febriyanti [8], the growth and development of MSMEs cannot be separated from the understanding and knowledge of literacy because it is related to financial management which significantly affects the success of Micro, Small and Medium Enterprises (MSMEs) themselves, because MSME

actors have a good understanding of financial literacy, financial literacy education becomes a necessity.

Meanwhile, the obstacles faced by the community in accessing financial institutions are caused by the high level of unbankability (not meeting bank loan requirements). Factors such as poverty, limited financing for MSMEs, high interest rates on microcredit, lack of MSME management skills, and limited financial service distribution channels are important reasons for implementing financial inclusion [9]. The National Survey of Financial Literacy and Inclusion (SNLIK) conducted by the West Sumatra OJK stated that the level of financial literacy and inclusion in the West Sumatra region is lower than the national figure. Financial inclusion in West Sumatra reached 76.88 percent, which is significantly lower than financial inclusion nationally [10].

In addition to understanding financial literacy, financial technology is a product of the integration of financial services and technology that has changed the business/enterprise model from conventional to more modern. The presence of this digital financial service can improve the performance of MSMEs by facilitating small transactions and managing income and expenses more efficiently. The provision of financial services, including payments, transfers, savings, and credit, allows service providers to customize additional services to individual needs. The use of financial technology continues to experience significant growth from year to year. Based on data from the World Bank, the proportion of financial technology users, which was previously only 7% in 2007, increased to 20% in 2011, and continued to grow to 36% in 2014. In 2017, this figure jumped sharply to 78%, representing around 135-140 companies involved, with the total value of financial technology transactions in Indonesia in that year estimated to reach IDR 202.77 trillion [11].

According to Rahardjo et al [12], the development of financial technology has resulted in creative disruption for Indonesian people who are not ready to face changes in economic activities. However, financial technology also opens up new opportunities for people to increase the efficiency and effectiveness of economic activities. Financial technology has helped finance small and medium enterprises that have limited access to banking. The adoption of mature regulations encourages MSMEs to develop their businesses by utilizing easy access to financing through financial technology.

Although the presence of financial technology can help MSMEs in improving business performance, many of them have not been able to utilize it. Previous studies have found that financial literacy affects business performance. Based on the background explanation in this study, it is important to discuss the influence of financial literacy and financial technology on the performance of MSMEs in Padang City by considering the role of financial inclusion as a mediator.

## 2. Research Method

This research is a type of quantitative research, which describes or explains the characteristics of a phenomenon or population using quantitative data. Through this research, it will be identified whether financial inclusion mediates the influence of financial literacy and financial technology on MSME Performance in Padang City. The sampling method used in this study is the nonprobability sampling technique, namely a non-random sampling technique using a sample selection method based on the ease of obtaining data and the freedom to choose the fastest and easiest sample or also called the convenience sampling method.

In the study, the population is all UMKM actors in Padang City. The number of samples in this study was calculated using the Hair formula where the sample size if too large will make it difficult to get a suitable model, and it is recommended that a suitable sample size ranges from 100 - 200 respondents to be able to use interpretation estimates with the Structural Equation Model (SEM). Determination of the minimum number of samples for SEM in this study was calculated using the formula:  $N = \{5 \times 10 \times 10 \text{ indikator}\}$ . So, based on the formula above, the number of samples obtained in this study is  $N = 5 \times 23 = 115$  samples.

## 3. Result and Discussion

This study examines the effect of financial literacy on performance, the effect of financial technology on performance, the effect of financial inclusion on performance, the effect of financial literacy on financial inclusion, the effect of financial technology on financial inclusion, and tests financial inclusion in mediating the effect of financial literacy on performance, and testing financial inclusion in mediating the effect of financial technology on the performance of MSMEs in Padang City. The characteristics of respondents in this study on Table 1.

Table 1. Respondent Characteristics

Data Classification		F	%
Gender	Man	31	27%
	Woman	84	73%
Business Age	< 3 years	63	55%
	3-5 years	20	17%
	6-10 years	15	13%
	11-20 years	7	6%
	>20 years	10	9%
Last education	SD	2	2%
	Junior High School	0	0%
	Senior High School	27	23%
	DII	28	25%
	Bachelor/Postgraduate	58	50%
Number of Workers	1-10	104	91%
	11-20	5	4%
	21-30	4	3%
	31-40	1	1%
	41-50	1	1%

Based on the table above, it can be seen that the number of female respondents is 84 respondents with a percentage of 73%, while male respondents is 31 people with a percentage of 27%. In terms of business

age, businesses that have been established for less than 3 years are dominated by 55%, followed by businesses that have been established for 3-5 years at 17%, then 13% for businesses that have been established for 6-10 years, 6% for businesses that have been established for 11-20 years, and 6% for businesses that have been established for more than 20 years.

In terms of the last education, it is dominated by Bachelor's/Postgraduate degrees at 50%, followed by DIII education level at 25%, high school education level at 23%, junior high school education level at 0%, and elementary school education level at 2%. Meanwhile, based on the number of workers, it is dominated by the number of workers between 1-10 people at 91%, followed by the number of workers between 11-20 people at 4%, the number of workers between 21-30 people at 3%, the number of workers between 31-40 people at 1%, and the number of workers between 41-50 people at 1%. Initial Outer Loading Output on Table 2.

Table 2. Initial Outer Loading Output

	Financial Technology	Financial Inclusion	MSME Performance	Financial Literacy
FT1	0.894			
FT2	0.945			
FT3	0.934			
FT4	0.915			
FT5	0.880			
FT6	0.923			
FT7	0.866			
IK1		0.825		
IK2		0.809		
IK3		0.888		
IK4		0.838		
IK5		0.855		
IK6		0.847		
K1			0.922	
K2			0.936	
K3			0.724	
K4			0.925	
K5			0.927	
LK1				0.832
LK2				0.862
LK3				0.859
LK4				0.831
LK5				0.800

Based on the table above it shows that all indicators contained in each variable in this study have an outer loading value greater than 0.70, so they can be considered valid. This indicates that each indicator has a high level of validity, thus meeting the criteria in the convergent validity test. Construct Validity and Reliability on Table 3.

Table 3. Construct Validity and Reliability

Variables	Average variance extracted (AVE)	Critical Value	Information
Financial Technology	0.825	> 0.50	Valid
Financial Inclusion	0.712	> 0.50	Valid
MSME Performance	0.794	> 0.50	Valid
Financial Literacy	0.701	> 0.50	Valid

Furthermore, AVE values are also considered in the convergent validity measurement model; Sugiyono stated that the use of AVE values is necessary to conduct convergent validity testing. In addition, a minimum AVE value of 0.5 is recommended to indicate good convergent validity. Cross Loading Output Table on Table 4.

Table 4. Cross Loading Output Table

	Financial Technology	Financial Inclusion	MSME Performance	Financial Literacy
FT1	0.894	0.662	0.554	0.650
FT2	0.945	0.726	0.617	0.728
FT3	0.934	0.755	0.633	0.696
FT4	0.915	0.744	0.636	0.689
FT5	0.880	0.691	0.539	0.638
FT6	0.923	0.746	0.623	0.709
FT7	0.866	0.644	0.640	0.726
IK1	0.769	0.825	0.716	0.747
IK2	0.581	0.809	0.586	0.621
IK3	0.618	0.888	0.591	0.628
IK4	0.692	0.838	0.614	0.641
IK5	0.709	0.855	0.622	0.651
IK6	0.549	0.847	0.547	0.546
K1	0.710	0.698	0.922	0.826
K2	0.638	0.683	0.936	0.783
K3	0.303	0.515	0.724	0.509
K4	0.622	0.670	0.925	0.749
K5	0.629	0.677	0.927	0.777
LK1	0.710	0.606	0.709	0.832
LK2	0.617	0.641	0.734	0.862
LK3	0.602	0.605	0.776	0.859
LK4	0.699	0.710	0.612	0.831
LK5	0.559	0.641	0.630	0.800

Discriminant validity proves that each indicator of each construct or variable has a higher value when compared to the value of other variables. Discriminant validity testing using cross-loading output values.

Table 5. Results of the Cronbach Alpha test and the Composite Reliability Value

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Information
Financial Technology	0.965	0.966	0.971	Reliable
Financial Inclusion	0.919	0.923	0.937	Reliable
Business Performance	0.933	0.948	0.950	Reliable
Financial Literacy	0.893	0.894	0.921	Reliable

Based on the table above it shows that each research variable is considered reliable because it has a large *Cronbach's alpha* value of 0.70 and a large *composite reliability* value of 0.60. So it can be concluded that each research variable meets the criteria in the reliability test. R-Square Test Results on Table 6.

Table 6. R-Square Test Results

	R-square	R-square adjusted
Financial Inclusion	0.680	0.675
MSME Performance	0.712	0.701

Based on the table 6, it shows that the performance variable has an R-square value of 0.712, which means that the variables of financial literacy, financial technology, and financial inclusion together influence performance by 71.2% and the remaining 28.8% is the influence of other variables that were not studied and affect the performance variable. Then, the financial inclusion variable has an R-squared value of 0.680, which means that the financial literacy and fintech variables influence the financial inclusion variable by 68%, and the remaining 32% is the influence of other variables that were not studied and affect the performance variable. Results of Bootstrapping Calculations of Direct Effects on Table 7.

Table 7. Results of Bootstrapping Calculations of Direct Effects

Variab les	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STD EV)	P value s
FL -> BP	0.636	0.596	0.150	4.236	0.000
FT -> BP	-0.022	-0.005	0.145	0.155	0.438
FI -> BP	0.267	0.293	0.125	2.129	0.017
FL -> FI	0.401	0.425	0.161	2,497	0.006
FT -> FI	0.478	0.454	0.155	3,082	0.001

Based on the results table 7, it can be seen that in testing hypothesis 1, the influence of financial literacy on financial inclusion shows the original sample value of 0.636 (positive), which means that the financial literacy variable has a positive effect of 0.636 on financial inclusion. Furthermore, the p-value is 0.000 <0.05 and the t-statistic value is 4.236 > 1.96. So it can be concluded that financial literacy has a positive and significant influence on financial inclusion in MSMEs in Padang City, which means the hypothesis is accepted.

This finding shows that financial literacy has an important role in supporting the growth of MSME performance in Padang City. With good financial literacy skills, it can support business actors in increasing performance growth significantly. This is supported by research conducted by Martono & Febriyanti [8] & [13] which states that having an education about financial literacy will produce better skills and knowledge so that a business actor will find it easier to develop the business he has. This finding is also supported by research conducted by Bidasari [14] that financial literacy has a positive and significant impact on the performance of Micro, Small and Medium Enterprises (MSMEs).

This is also in line with the Resource-Based View theory, the resource-based view (RBV) states that competitive advantage and company performance depend on tangible and intangible resources. This theory states that superior resources can be a competitive advantage for the company. The better the financial literacy ability of MSME business actors, the better the impact on performance. Results of testing

hypothesis 2 on the influence of financial technology on performance show that the original sample value of -0.022 shows a negative influence with a t-statistic value of 0.155 <1.96 and a p-value of 0.438 > 0.05. Based on these results, it can be concluded that financial technology has a negative but insignificant effect on the performance of MSMEs in the City of Padang, which means that hypothesis two (H2) is rejected.

According to the Resource-Based View (RBV) theory, financial technology is a resource that is capable of providing advantages. competitive for the company. However, the results of the study show that financial technology hurts performance. This may be due to the suboptimal use of financial technology in MSMEs in Padang City. MSME actors in Padang City in general, still need a strategic approach in managing financial technology and support from all those involved in their business.

The results of testing Hypothesis 3 on the effect of financial inclusion on performance show that the original sample value of 0.267 indicates a positive effect with a t-statistic value of 2.129 > 1.96 and a p-value of 0.017 < 0.05. So it can be concluded that financial inclusion has a positive and significant influence on the performance of MSMEs in Padang City which means the hypothesis is accepted. The results of testing Hypothesis 4 on the influence of financial literacy on financial inclusion show that the original sample value of 0.401 indicates a positive influence with a t-statistic value of 2.497 > 1.96 and a p-value of 0.006 < 0.05. So it can be concluded that financial literacy positively and significantly impacts financial inclusion in MSMEs in Padang City, which means the hypothesis is accepted.

This shows that financial inclusion plays an important role in increasing the growth of business performance in Padang City MSMEs. Financial inclusion allows MSMEs to obtain access to financing from banks or other financial services. This is in line with research conducted by Yanti [15] found that financial inclusion has a positive effect on financial performance. This finding is also supported by research conducted [16] showing that financial literacy and financial inclusion, both partially and simultaneously, have a significant effect on the performance of Micro, Small, and Medium Enterprises (MSMEs). The study's results [17] support this finding, which shows that financial inclusion has a positive and significant effect on the performance of MSMEs.

The Resource-Based View (RBV) theory supports that financial inclusion can help MSMEs increase capital resources. Having access to funding from financial services helps MSMEs increase competitive advantages, which can later increase performance growth. The results of testing Hypothesis 5 on the influence of financial technology on financial inclusion show that the original sample value of 0.478 indicates a positive influence with a t-statistic value of 3.082 > 1.96 and a p-value of 0.001 < 0.05. So it can be



concluded that financial technology positively and significantly affects financial inclusion in MSMEs in Padang City. which means the hypothesis is accepted.

This is supported by the results of research conducted by Rohmah [18], which shows that the higher the fintech, the higher the level of financial inclusion. This study implies that increasing financial inclusion can be done by increasing financial literacy and the use of fintech. The Resource-Based View (RBV) theory supports financial literacy and financial inclusion in providing resources that support business development. Access to external financing can help MSMEs in developing their businesses. The Resource-Based View (RBV) theory is seen in the presence of financial technology and financial inclusion in providing rare and difficult to imitate competitive advantages, which contribute to the growth of MSME businesses. Optimal utilization of financial technology makes it easy for MSMEs to access financial inclusion. Results of Bootstrapping Calculations of Indirect Effects on Table 8.

Table 8. Results of Bootstrapping Calculations of Indirect Effects

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)
FL-> FI->BP	0.107	0.128	0.083
FT->FI->BP	0.127	0.130	0.069

Based on the table above, the results of testing the indirect influence hypothesis on hypothesis 6 show that the original sample value of 0.107 has a positive influence with a t-statistic value of 1.294 and a p-value of 1.294.  $0.098 > 0.05$ . The results indicate that the financial inclusion variable does not mediate the relationship between financial literacy and performance in MSMEs in Padang City, so hypothesis 6 is rejected.

Based on the results of the study it shows that financial inclusion does not mediate the relationship between financial literacy and performance in MSMEs in Padang City. This shows that financial inclusion does not always play a role in strengthening the influence of financial literacy on the performance of MSMEs in Padang City. This is in line with the findings [19] that financial literacy has a direct impact on MSME performance, and financial inclusion is not necessary. In other words, financial literacy shapes MSME performance. The Resource-Based View (RBV) theory emphasizes the importance of resources in building competitive advantage. In this case, financial literacy is a resource that can increase competitiveness to improve MSME performance.

Furthermore, in testing the indirect influence hypothesis, hypothesis 7 shows the original sample value of 0.127, which has a positive influence with a t-statistic value of 1.844 and a p-value of 1.844.  $0.033 < 0.05$ . The results indicate that the financial inclusion variable mediates the influence of the relationship between financial technology and performance in MSMEs in Padang City, so hypothesis 7 is accepted.

Based on the results of the study show that financial inclusion can mediate the relationship between financial technology and performance in MSMEs in Padang City. This shows that financial inclusion plays a role in strengthening the influence of financial technology on MSME performance. Research conducted by Ranti & Sartika [20], also found that financial inclusion mediates between financial technology and the performance of MSME actors. Financial technology plays a role in the progress of MSMEs, not only in providing business capital but also in developing digital payment systems and financial management.

The Resource-Based View (RBV) theory states that competitive advantage can be seen from the ability of a business to utilize unique, rare, difficult to imitate, and irreplaceable internal resources. Financial technology is a resource that plays an important role in supporting business performance growth. Financial inclusion can contribute in terms of ease of access to financial services to support MSME capital, while financial technology can provide ease in carrying out transaction processes and provide new opportunities, so that the combination of the two can collaborate in business performance growth.

#### 4. Conclusion

Based on the results of the research that has been conducted related to the influence of financial literacy and financial technology mediated by financial inclusion on the business performance of MSMEs in Padang City, it can be concluded that financial literacy has a significant positive effect on the business performance of Micro, Small and Medium Enterprises (MSMEs) in Padang City. This indicates that This means that good knowledge and skills in managing finances have a positive effect on the growth of MSME performance. Good financial literacy skills help MSMEs in evaluating the financial performance of their business. Financial technology has a negative but insignificant effect on MSME business performance. This implies that the use of financial technology is not yet optimal and has not been fully supported by the people involved in their business. Financial inclusion has a significant positive effect on MSME business performance. This indicates that financial inclusion can provide convenience for business actors in obtaining funding that can support performance growth. Financial literacy has a significant positive effect on financial inclusion. This indicates that the better the knowledge and financial management of MSMEs, the easier it is for them to obtain loan access because they have clear financial records. Financial technology has a significant positive effect on financial inclusion. This indicates that the presence of financial technology can support business actors in accessing available financial services, so that they can be optimal in funding. Financial inclusion does not mediate the influence of financial literacy on business performance. This indicates that financial literacy can have a direct influence on performance without going through

financial inclusion. Financial inclusion mediates the influence of financial technology on business performance. This means that the existence of financial technology can contribute to providing easy access to financial services, so that it can support increased performance growth.

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