

## Financial Literacy Analysis in Encouraging Sustainable MSMEs Business Performance Mediation Financial Access and Adoption Fintech

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### ABSTRACT

*Many MSMEs still face fundamental challenges such as limited access to formal financing, low financial literacy, and slow adoption of digital technology, including fintech. Sustainable business performance requires business actors not only to survive economically but also to manage their businesses efficiently, have a long-term orientation, and adapt to market and technological dynamics. The purpose of this study is to analyze the role of financial literacy on the sustainable performance of MSMEs by examining the mediating role of financial access and fintech adoption. The method in this study uses the Structural Equation Modeling – Partial Least Squares (SEM-PLS) approach with the assistance of SmartPLS software. This research is a quantitative explanatory study, with the population consisting of MSMEs in Kediri City. The results show that financial literacy does not directly affect MSME performance, but it plays an important role in expanding financial access. This financial access then becomes a significant mediating pathway that connects financial literacy with business performance. Thus, financial literacy will only contribute effectively to MSME performance if it is accompanied by the ability to access and utilize financial services productively. Meanwhile, fintech adoption has been shown to play no significant role, either directly on performance or as a mediator between financial literacy and business performance. This indicates that the use of financial technology remains limited to basic transaction functions and has not been fully integrated into MSME business strategies.*

**KEYWORDS** *Financial Literacy; Performance; Financing; Fintech; Sustainability*



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### INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) have a strategic role in national and regional economic development (Suryantini et al., 2023). In Kediri City, MSMEs are the main drivers of the economy, as well as important contributors to employment absorption and reducing income inequality (Nahdya et al., 2024). Based on data from the Kediri City Cooperatives, Micro Enterprises, and Manpower Office, the number of MSMEs increased from 5,808 in 2021 to 9,553 units in 2023, reflecting growth of 64.4% in the last three years (Badan Pusat

Statistik, 2024). This growth demonstrates the positive momentum of the business world post-pandemic, as well as the increasing public interest in entrepreneurship.

However, the increase in number has not been accompanied by improvements in the quality or sustainability of MSME performance. Many MSMEs still face fundamental challenges such as limited access to formal financing, low financial literacy, and slow adoption of digital technology, including fintech (Ratnawati et al., 2024). Sustainable business performance requires business actors to not only survive economically, but also be able to manage their businesses efficiently, have a long-term orientation, and adapt to market and technological dynamics (Siddik et al., 2023).

In this context, financial literacy is an important component that influences the quality of financial decision-making, working capital management, and the ability of MSMEs to access formal financing (Burchi et al., 2021). Previous research found that financial literacy and financial access have an impact on the sustainable performance of MSMEs (Babajide et al., 2023; Ullah et al., 2021). Other studies also show that financial literacy and the use of technology contribute significantly to business sustainability (Babajide et al., 2023; Siddik et al., 2023). However, the relationship between financial literacy and sustainable performance through financial access and fintech adoption as mediating variables has not been widely studied, especially in the local context.

This research gap is important, because in the digital era, the ability of MSMEs to access technology-based financial services is the main determinant of their competitiveness (Pizzi et al., 2021). The Ecological Modernization Theory (EMT) approach emphasizes that economic modernization does not have to be at odds with sustainability (Rehman Khan et al., 2022). On the contrary, through technological innovation and institutional reform, business actors can achieve efficiency while maintaining social and environmental sustainability (AL-Khatib, 2023). EMT supports the idea that the use of technology such as fintech can improve the sustainability of MSMEs through efficiency, transparency, and access to resources.

The research question is: to what extent can financial literacy drive sustainable MSME performance, and do financial access and financial technology adoption mediate this relationship? The purpose of this study is to analyze the role of financial literacy in sustainable MSME performance by examining the mediating role of financial access and fintech adoption.

The urgency of this research operates on multiple levels. From a normative development perspective, Indonesia faces significant challenges in achieving the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure). MSMEs, which constitute over 99% of all businesses in Indonesia and contribute

approximately 60% to GDP, are central to achieving these goals. However, without improved financial literacy and effective integration of digital financial services, many MSMEs remain trapped in subsistence-level operations with limited growth potential and high vulnerability to economic shocks.

From a theoretical perspective, this research contributes to bridging the gap between behavioral finance theory, resource-based view, and ecological modernization theory in the context of small enterprise development. While financial literacy research has traditionally focused on individual consumer behavior, and sustainability studies have concentrated on large corporations, there remains insufficient theoretical integration explaining how financial capabilities translate into sustainable business practices in the MSME sector, particularly through digital mediation pathways.

From a practical and policy perspective, the findings of this research are expected to serve as an evidence-based foundation for designing targeted MSME empowerment strategies. Current policies often adopt one-size-fits-all approaches to financial education or digital transformation, without recognizing the sequential and conditional nature of how literacy enables access, which in turn creates conditions for technology adoption. If this study confirms that financial access is the critical mediating pathway while fintech adoption is not, this would signal the need for policymakers to prioritize reducing structural barriers to formal financing before investing heavily in digital literacy programs.

The urgency of this research lies in the need for an integrated approach between financial education, financial inclusion, and digital transformation to improve the resilience and sustainability of MSMEs. From a theoretical perspective, this research contributes to bridging the gap between behavioral finance theory, resource-based view, and ecological modernization theory in the context of small enterprise development. While financial literacy research has traditionally focused on individual consumer behavior, and sustainability studies have concentrated on large corporations, there remains insufficient theoretical integration explaining how financial capabilities translate into sustainable business practices in the MSME sector, particularly through digital mediation pathways.

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This research is expected to contribute academically and policy-wise to designing MSME empowerment strategies that are relevant and adaptive to changing times. This aligns with the government's Asta Cita number 3, namely increasing quality employment, encouraging entrepreneurship, developing the creative industry, and continuing infrastructure development. (Prabowo Subianto Gibran Rakabuming Raka, 2024). By providing empirical evidence on the mechanisms through which financial literacy impacts sustainable business performance, this study offers actionable insights for the Ministry of Cooperatives and SMEs, the Financial Services Authority (OJK), regional development agencies, and financial institutions seeking to design more effective support programs for the MSME sector.

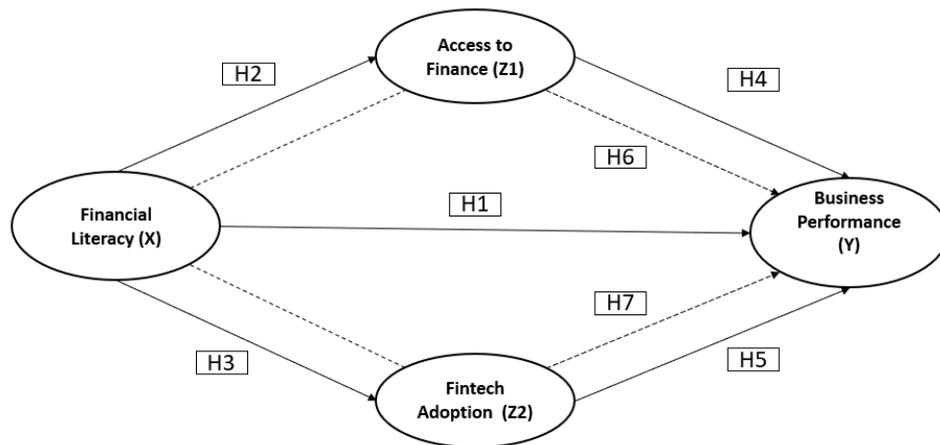
### **RESEARCH METHOD**

The approach used in this study was quantitative explanatory (Sekaran & Bougie, 2016), aimed at explaining the relationship between variables in a structured manner: financial literacy, financial access, financial technology (fintech) adoption, and sustainable MSME performance. The research was conducted in Kediri City, East Java, Indonesia, with the subjects being MSME actors (business owners or managers) operating within the city's jurisdiction.

This study tested a causal relationship model using multivariate statistical analysis techniques, such as Structural Equation Modeling (SEM) or Partial Least Squares (PLS), to examine the direct and indirect influences between the variables studied.

The issue addressed was the mismatch between the quantitative growth of MSMEs in Kediri City and the achievement of sustainable business performance. To address this, the research not only captured empirical conditions but also drew on a robust theoretical framework, namely Ecological Modernization Theory (EMT).

The population in this study comprised 9,553 MSMEs in Kediri City in 2023. A purposive sampling technique was used to select MSMEs operating in Kediri City. Purposive sampling allowed for the selection of specific participants with characteristics relevant to the research objectives. The sample size was calculated using the Slovin formula with a 95% confidence level and a 5% margin of error, resulting in 385 respondents (Hair et al., 2019). Respondents, namely MSME actors from various industries and sizes, were included to ensure diversity and representation.



**Figure 1.** Conceptual Model of the Study

This study used primary data as the main source, collected directly from respondents through the distribution of questionnaires both in person and online via Google Form to MSMEs in Kediri City. The questionnaire was designed based on theoretical indicators from an integrative model combining Ecological Modernization Theory (EMT) and Resource-Based View Theory (RBV). The instrument employed a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) to capture the intensity of respondents' attitudes and perceptions toward each research construct.

The collected data were analyzed using the Structural Equation Modeling – Partial Least Squares (SEM-PLS) method with the help of SmartPLS software. SEM-PLS was chosen due to its advantages in analyzing research models with complex latent constructs and its ability to handle simultaneous causal relationship models with a relatively large number of indicators, even when the sample size was not large. The analysis was carried out in two stages: (1) evaluation of the measurement model (outer model) to test the validity (convergent and discriminant validity) and reliability of the instrument (through AVE and Composite Reliability values), and (2) evaluation of the structural model (inner model) to test the relationships between latent variables through path coefficient tests,  $R^2$  values, and significance assessed using bootstrapping.

## RESULT AND DISCUSSION

In this study, descriptive analysis was used to describe the distribution of the characteristics of the MSME respondents. The number of respondents in this study was 385 people, namely MSME actors in Kediri City. Furthermore, the Structural Equation Modeling–Partial Least Squares (SEM-PLS) method was used to examine the role of financial literacy and how financial access and financial technology

adoption mediate their influence on the sustainability of MSME business performance in Kediri City.

**Table 1.** Demographic Respondent

No	Information	Category	Frequency	Percentage (%)
1	Gender	Male	186	48%
		Female	199	52%
2	Age	17 - 30 Years	133	35%
		31 - 40 Years	124	32%
		41 - 50 Years	103	27%
		51 - 60 Years	17	4%
		> 60 Years	8	2%
3	Education	Elementary school	8	2%
		Junior High School	15	4%
		Senior High School	169	44%
		Diploma/Bachelor's Degree	183	48%
		Master	8	2%
		Doctor	2	1%
4	Business sales	< Rp. 300.000.000 /Years	187	49%
		Rp. 300.000.000 - Rp. 2.500.000.000 / Years	129	34%
		Rp. 2.500.000.000 - Rp. 50.000.000.000	58	15%
		> Rp. 50.000.000.000 / Years	11	3%
5	Length of Business	< 1 Years	77	20%
		1 - 5 Years	205	53%
		6 - 10 Years	76	20%
		> 10 Years	27	7%
6	Employee	< 2 People	134	35%
		2 - 5 People	177	46%
		6 - 10 People	50	13%
		> 10 People	24	6%

**Source:** Processed Researcher, 2025

Based on data collected from 385 MSME respondents in Kediri City, a fairly diverse range of characteristics was obtained. In terms of gender, the majority of respondents were women (199 respondents) (52%), while 186 were men (48%). This indicates that women play a significant role in managing and developing MSMEs in Kediri City. In terms of age, the majority of respondents were in the productive age group, namely 17–30 years old (35%) and 31–40 years old (32%). Meanwhile, respondents aged 41–50 years old made up 27%, and only a small proportion were over 50 years old (6%). This data indicates that MSMEs in Kediri City are dominated by the younger generation and those of productive age who have great potential for innovation and business development.

Based on education level, the majority of respondents had secondary or higher education. Forty-four percent had a high school diploma, and 48% had a diploma or bachelor's degree. Only a small percentage had completed primary education (2%), junior high school (4%), a master's degree (2%), or a doctorate (1%). This indicates that MSMEs have relatively adequate formal knowledge to support business management. In terms of business sales levels, nearly half of respondents (49%) had annual sales of less than Rp 300,000,000, while 34% had annual sales between Rp 300,000,000 and Rp 2,500,000,000. Only 15% had annual sales between Rp 2,500,000,000 and Rp 50,000,000,000, while 3% had annual sales above Rp 50,000,000,000. This fact shows that most MSMEs in Kediri City are still on a micro and small scale, with limited turnover.

In terms of business tenure, the majority of MSMEs (53%) have been operating for 1–5 years, while 20% have been operating for less than a year. 20% have been operating for 6–10 years, and only 7% have been operating for more than 10 years. This indicates that most MSMEs are in their early growth phase and are still relatively young. Finally, in terms of workforce, most MSMEs have a relatively small number of employees. Forty-six percent of respondents have two to five employees, 35% have fewer than two employees (family businesses), 13% have six to ten employees, and only six percent have more than ten employees. These findings reinforce the fact that the MSME business structure in Kediri City is still dominated by micro and small businesses with limited operational scale.

### Descriptive Statistic and Correlation

This study uses the variables Financial Literacy, Business Performance, Financial Access, and Fintech Adoption, the average results of respondents' answers along with their standard deviations can be seen in Table 2.

**Table 2.** Descriptive Statistic and Correlation

Variable	Mean	SD
Financial Literacy	4.665	0,68
Financial Access	4.444	0,77
FinTech Adoption	4.772	0,50
Business Performance	4.719	0,54

**Source:** Processed Researcher, 2025

### Measurement Model Analysis

In this study, testing was conducted using convergent validity and discriminant validity on the constructs used to develop the initial research scale. The obtained values ranged from 0.50 to 0.60, which was deemed to meet the

eligibility criteria (Ghozali & Latan, 2014). Details of the validity and reliability test results can be seen in Table 3.

**Table 3.** Validity Analysis

<i>Latent Variable</i>	<i>Indicator</i>	<i>Convergent Validity</i>		<i>Discriminant Validity</i>	
		<i>Loading Factor</i>	<i>Result</i>	<i>AVE</i>	<i>Result</i>
<b>Financial Literacy</b>	FL1	0,903	Valid	0,842	Valid
	FL2	0,912	Valid		
	FL3	0,927	Valid		
	FL4	0,912	Valid		
	FL5	0,908	Valid		
	FL6	0,902	Valid		
	FL7	0,888	Valid		
	FL8	0,946	Valid		
	FL9	0,957	Valid		
<b>Financial Access</b>	AF1	0,881	Valid	0,766	Valid
	AF2	0,882	Valid		
	AF3	0,885	Valid		
	AF4	0,852	Valid		
	AF5	0,876	Valid		
<b>Adoption Finech</b>	FA1	0,799	Valid	0,649	Valid
	FA2	0,824	Valid		
	FA3	0,781	Valid		
	FA4	0,717	Valid		
	FA5	0,840	Valid		
	FA6	0,841	Valid		
	FA7	0,832	Valid		
<b>Business Performance</b>	BP1	0,871	Valid	0,762	Valid
	BP2	0,878	Valid		
	BP3	0,834	Valid		
	BP4	0,880	Valid		
	BP5	0,875	Valid		
	BP6	0,870	Valid		
	BP7	0,875	Valid		
	BP8	0,867	Valid		
	BP9	0,873	Valid		
	BP10	0,878	Valid		
	BP11	0,887	Valid		
	BP12	0,888	Valid		

**Source:** Processed Researcher, 2025

Based on the convergent validity test results in Table 3, the loading factor values for the items Financial Literacy, Business Performance, Financial Access, and Fintech Adoption are all above 0.7. Therefore, it can be concluded that each item in this research instrument is valid in representing the measured variables.

**Table 4.** Reliability Analysis

Variable	Cronbach's alpha	Composite reliability
Financial Literacy	0,976	0,978
Financial Access	0,924	0,927
FinTech Adoption	0,912	0,934
Business Performance	0,972	0,976

**Source:** Processed Researcher, 2025

Table 4 presents the results of the reliability analysis using Cronbach's Alpha and Composite Reliability tests on the research variables, including Financial Literacy, Financial Access, Fintech Adoption, and Business Performance. The Cronbach's Alpha values for all variables were above 0.90, ranging from 0.912 to 0.976, indicating very high internal consistency of the instrument. Similarly, the Composite Reliability values for all variables were also greater than 0.90, ranging from 0.927 to 0.978, reinforcing the finding that the research instrument had excellent reliability. These results confirm that each indicator used in this study was able to consistently represent its latent variable, thus declaring the research instrument reliable for further analysis.

### Structural Model Test

The following are the results of the coefficient of determination ( $R^2$ ) test for the research variables. The  $R^2$  value for the Financial Access variable is 0.856, indicating that 85.6% of the variation in financial access can be explained by the constructs used in the model. Furthermore, the highest  $R^2$  value was obtained for the Fintech Adoption variable with a value of 0.971, meaning that 97.1% of the variation in fintech adoption can be strongly explained by the research model. Meanwhile, the Business Performance variable has an  $R^2$  value of 0.878, indicating that 87.8% of the variation in business performance is influenced by the variables in the model. Overall, these results indicate that the research model has very strong explanatory power for these three variables.

Based on the calculation results of the Average Variance Extracted (AVE) and coefficient of determination ( $R^2$ ), the GoF value was obtained at 0.825. This value indicates that the research model has a very good level of feasibility. According to the criteria of Wetzels et al. (2009), GoF values are divided into three categories, namely small (0.1), medium (0.25), and large (0.36). Thus, the GoF

results of this study which reached 0.825 can be categorized as very large, so that the model used is able to explain the relationship between variables with a very high level of validity and explanatory power. Furthermore, the Predictive Relevance ( $Q^2$ ) value = 0.999 or close to 1, which means this model has very high predictive power for endogenous variables.

Overall, these results indicate that the research model that includes the variables of Financial Literacy, Financial Access, Fintech Adoption, and Business Performance has very strong model feasibility, so it can be trusted for use in testing hypotheses and drawing research conclusions.

### Hypothesis Test

This study conducted hypothesis testing, including analysis of both direct and mediated effects. The direct effect test was conducted to determine the extent to which Financial Literacy, Financial Access, and Fintech Adoption influence Business Performance.

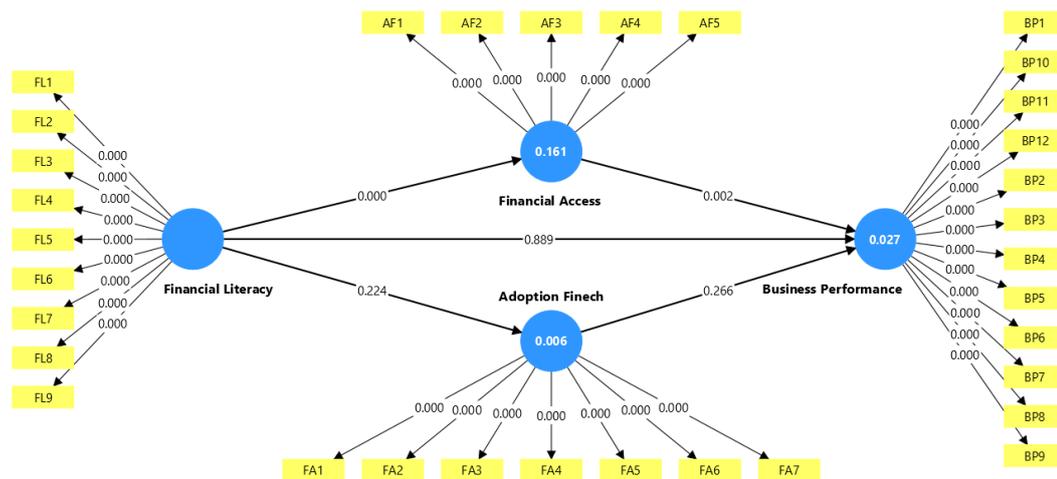


Figure 2. Results SmartPLS4

Table 5. Direct Effect Test Results

Correlation	Path Coef	t-Statistic	P-Value	Result
Financial Literacy -> Business Performance	0,007	0,139	0,889	Rejected
Financial Literacy -> Financial Access	0,402	6,588	0,000	Accepted
Financial Literacy -> FinTech Adoption	-0,075	1,215	0,224	Rejected
Financial Access -> Business Performance	-0,147	3,050	0,002	Accepted
FinTech Adoption -> Business Performance	0,086	1,113	0,266	Rejected

Source: Processed Researcher, 2025

Table 5 presents the results of the direct effect test between the research variables. The analysis shows that Financial Literacy has no significant effect on Business Performance (p-value 0.889), but a positive and significant effect on Financial Access (p-value 0.000). Meanwhile, the effect of Financial Literacy on Fintech Adoption is insignificant (p-value 0.224).

Furthermore, Financial Access is shown to have a negative but significant effect on Business Performance (p-value 0.002), indicating that higher financial access can actually decrease business performance in the context of this study. The effect of Fintech Adoption on Business Performance is insignificant (p-value 0.266). Thus, only two relationships are supported by the data: the effect of Financial Literacy on Financial Access and the effect of Financial Access on Business Performance; the other relationships are rejected.

**Table 6.** Indirect Effect Test Results

Correlation	Path Coef	t-Statistic	P-Value	Result
Financial Literacy -> Financial Access -> Business Performance	-0,059	2,637	0,008	Accepted
Financial Literacy -> FinTech Adoption -> Business Performance	-0,006	0,825	0,409	Rejected

**Source:** Processed Researcher, 2025

Table 6 presents the results of the mediation test in this study. The analysis shows that financial literacy has an indirect effect on business performance through financial access, with a p-value of 0.008, indicating a significant relationship and acceptance. This finding confirms that financial access can act as a mediating pathway that strengthens the link between financial literacy and business performance. Conversely, the indirect effect of financial literacy on business performance through fintech adoption was insignificant (p-value 0.409), thus rejecting the mediation hypothesis. Thus, only financial access is proven to mediate the relationship between financial literacy and business performance, while fintech adoption does not act as a mediating variable in this study.

The analysis results show that financial literacy does not have a significant direct impact on the performance of MSMEs in Kediri City. This means that even though MSMEs have an understanding of financial recording, planning, and management, this has not significantly impacted business performance. This finding contradicts research (Babajide et al., 2023; Siddik et al., 2023). Financial literacy is essentially just a basic knowledge capacity, which without the support of real-world practices in business management is insufficient to drive improved performance. These findings confirm that financial literacy will only provide optimal contribution if accompanied by the ability to access financing sources and

utilize financial technology (fintech). In other words, the financial knowledge possessed by MSMEs needs to be integrated with other supporting factors for effective implementation in business activities. This aligns with the Ecological Modernization Theory (EMT) and Resource-Based View (RBV) frameworks, which emphasize that internal resources such as financial literacy must be combined with external access and strategies to generate sustainable business performance.

The analysis results show that financial literacy significantly influences financial access for MSMEs in Kediri City. This indicates that the better the financial understanding and knowledge possessed by MSMEs, the greater their ability to obtain and utilize access to financial services, both formal and informal. Financial literacy provides entrepreneurs with the tools to understand financial products, manage loans, and assess risks, thus increasing their confidence in establishing relationships with financial institutions. This finding confirms the research (Adomako et al., 2016) that financial literacy not only serves as a knowledge instrument, but also as a crucial asset that opens opportunities for MSMEs to connect with financial resources. With good literacy skills, MSMEs are able to identify opportunities, assess financing feasibility, and utilize financial instruments more optimally. This supports the theoretical framework of the Resource-Based View (RBV), where internal resources in the form of financial literacy are the main determinant in expanding access to external resources, including access to financing, which can ultimately support business growth and sustainability.

The analysis results show that financial literacy does not significantly influence fintech adoption among MSMEs in Kediri City. This means that the level of financial understanding and knowledge possessed by MSMEs does not directly determine the extent to which they are willing or able to utilize financial technology services. This finding contradicts research (Babajide et al., 2023; Siddik et al., 2023). Thus, financial literacy alone is not sufficient to be a primary driving factor for MSMEs to adopt fintech. These findings indicate that MSMEs' decisions to use fintech are more influenced by other factors, such as ease of access, trust in the technology, practical needs for transactions, and a supportive business environment. Financial literacy plays a crucial role as a foundation of knowledge, but in the context of fintech adoption, external factors and perceptions of the technology are more dominant. Therefore, to increase fintech adoption, interventions are needed that focus not only on improving financial literacy but also on aspects of trust, security, and ease of use of financial technology.

The analysis shows that financial access significantly impacts the performance of MSMEs in Kediri City, although the effect is negative. This means that greater access to financing sources or financial services by MSMEs does not necessarily lead to positive improvements in business performance. This finding

aligns with research (Hussain et al., 2018). In this context, high access can potentially create burdens, such as installment payments or high loan costs, which can depress business performance if not balanced with proper management. These findings emphasize that the availability of financial access must be accompanied by appropriate managerial skills and business strategies to truly leverage it to improve business performance. If financing access is not used productively, it can create financial risks that negatively impact the sustainability of MSMEs. Therefore, intervention is needed not only to broaden financial access but also to ensure MSMEs have the capacity to manage the funds obtained to support sustainable business growth.

The research results show that fintech adoption does not significantly impact MSME business performance. In other words, even though business actors have used fintech-based services or technology, this has not significantly contributed to improving their business performance. This finding contradicts the findings of other research. (Pizzi et al., 2021; Siddik et al., 2023). This situation indicates that fintech is still used primarily as a transaction tool or operational support, but has not yet been optimized as a strategy that directly impacts business success. This finding confirms that the presence of fintech technology does not necessarily guarantee improved business performance if it is not accompanied by management skills, appropriate business strategies, and the readiness of MSMEs to maximize the technology's potential. Therefore, further efforts are needed, both through mentoring and capacity building, so that fintech adoption can truly contribute to achieving better business performance.

The results of the mediation analysis indicate that financial literacy does not directly affect MSME performance, but rather impacts it through financial access. This means that a good understanding of finance among MSMEs helps them gain access to financial services, both formal and informal, which then has implications for improving business performance. Thus, financial access acts as a crucial intermediary bridging financial literacy with sustainable business performance. This finding confirms that although financial knowledge does not directly improve business performance, it does enable MSMEs to more easily obtain financing, capital management, or other financial support. This access then becomes a crucial factor in driving better business performance. In other words, financial literacy will only be meaningful if it is accompanied by the actual ability to access relevant financial services.

The results of the mediation analysis indicate that financial literacy through fintech adoption does not significantly impact MSME business performance. This means that even though MSMEs have a good level of financial literacy, this ability does not automatically encourage them to adopt fintech technology, which then has implications for improving business performance. In other words, fintech adoption

has failed to act as an intermediary bridging financial literacy with business performance. This finding indicates that mastery of financial knowledge is not sufficient to encourage optimal fintech utilization in MSME business activities. This weak mediation role may be caused by limited understanding of the technology, a lack of trust in the security of fintech systems, or the minimal relevance of fintech use in MSMEs' daily operations. Therefore, financial literacy needs to be supported by efforts to increase trust, digital skills, and infrastructure readiness so that fintech utilization can truly contribute to business success.

### CONCLUSION

This study investigated the influence of financial literacy, financial access, and fintech adoption on the sustainable performance of MSMEs in Kediri City using SEM-PLS analysis. The results revealed that financial literacy did not directly affect MSME performance but significantly enhanced financial access, which acted as a key mediator linking financial literacy to business outcomes. In contrast, fintech adoption showed no significant direct or mediating effect, suggesting its use remains limited to basic transactions and is not yet integrated into MSME strategies. The findings highlight that improving financial literacy alone is insufficient for sustainable performance unless accompanied by better managerial skills, digital competence, and trust in fintech. Future research should explore the impact of external factors like policy support and digital ecosystems, as well as moderating variables such as technological trust and organizational readiness, to deepen understanding of financial literacy and fintech's roles in MSME development.

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