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## **FINTECH ADOPTION, FINANCIAL LITERACY, AND MSME SUSTAINABILITY: PERFORMANCE AS MEDIATOR**

**Utami Setianingrum<sup>1</sup> Datien Eriska Utami<sup>2</sup>**

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### **Corresponding:**

*Faculty of Islamic Economics  
and Business, Raden Mas Said  
State Islamic University,  
Surakarta, Central Java,  
Indonesia  
Email:  
[setiauta.mii21@gmail.com](mailto:setiauta.mii21@gmail.com)*

### **Abstract**

This study examines the effects of financial technology (Fintech) adoption and financial literacy on the sustainability of Micro, Small, and Medium Enterprises (MSMEs), with business performance as a mediating variable. The background of this study is the strategic role of MSMEs in the Indonesian economy and the various challenges they face in financial management and digital adoption, where Fintech and financial literacy are considered potential solutions. The research method employs an explanatory quantitative approach, using PLS-SEM analysis. Primary data were collected using questionnaires from 149 MSME actors in Boyolali Regency, Central Java, using convenience sampling. The results indicate that financial literacy has a direct positive impact on sustainability and an indirect impact through improved performance. Meanwhile, fintech adoption has no significant direct effect on sustainability; its impact is fully mediated by SME performance. In conclusion, this study confirms the role of business performance as a key mediator, transforming technology adoption and financial literacy into sustainable business resilience. The implications of this study highlight the importance of integrated MSME empowerment programs that combine financial literacy improvement with technology adoption assistance and a focus on strengthening operational and financial performance capabilities, laying the foundation for sustainability.

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Faculty of Islamic Economics and Business, Raden Mas Said State Islamic University, Surakarta, Central Java, Indonesia<sup>2</sup>

Email: [datienriskautami@staff.uinsaid.a.id](mailto:datienriskautami@staff.uinsaid.a.id)

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## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) occupy a strategic and central position within Indonesia's economy, serving as a cornerstone of national economic development. Data from the Coordinating Ministry for Economic Affairs of the Republic of Indonesia (2025) It shows the significant contribution of MSMEs. MSMEs have absorbed nearly 97 percent of the workforce and contributed more than 60 percent to the gross domestic product (GDP). Additionally, the MSME sector serves as a key driver of economic growth in Indonesia. Notwithstanding their crucial role, Msme face numerous challenges, particularly in financial management and business sustainability. Most MSME players face limitations in adopting digital technology and in developing digital literacy. (Lisnawati, 2024). In addressing these challenges, financial technology (Fintech) has emerged as an innovative solution to expand access to financial services, improve transaction efficiency, and enhance financial management for MSMEs.

The government actively encourages the use of Fintech as part of its efforts to develop MSMEs and as one of the pillars to accelerate digital transformation. Fintech offers easy access to a range of digital financial services and provides a financial education platform to help improve MSME players' understanding of financial management. The adoption of financial technology is conceptually grounded in the Technology Acceptance Model (TAM) (Davis, 2014). This framework, known as the TAM, explains user acceptance of information systems. It has been applied specifically to analyze the Adoption of Financial Technology Applications. (Kam, 2024). The digitization of Msme is expected to change their mindset in using digital technology, which is not only about developing their products through online marketing to expand their market share. (Arinda, 2021). Additionally, Fintech is expected to help Msme access financing, as they often face limited opportunities to secure loans from banks. Relying on resources or money from friends and family is an obstacle to the growth of Msme. (Kisin & Setyahuni, 2024; Lisnawati, 2024).

Given the large number of MSME players who are still unable to compile digital accounting and financial administration reports, financial literacy plays a crucial role in supporting this capability. Based on research findings (Kusumawati et al., 2025), which shows that a good level of financial literacy helps business owners prepare accurate financial reports, manage risk, and make sound financial decisions. Higher levels of financial literacy increase the likelihood that Msme will adopt and effectively utilize fintech tools. In addition, a sufficient level of financial literacy among Msme is associated with more positive attitudes towards financial risk and greater organizational risk tolerance. (Lontchi et al., 2023; Masdupi et al., 2024). This enables Msme to improve their performance, both in terms of profitability and operational efficiency. It also helps them make better investment decisions, including adopting financial technology.

Digital adoption driven by financial literacy can strengthen business sustainability. Msme that can effectively manage their finances and utilize digital technology tend to be more resilient to market fluctuations. (Kurniasari et al., 2023, 2025). A combination of good financial literacy and fintech adoption can significantly enhance the performance of MSMEs. Additionally, a supportive business environment can also enhance the performance of Msme. (Sholehah et al., 2024). RBV theory reinforces this argument by emphasizing that superior performance resulting from internal resources (such as financial and technological literacy) will form the basis of an organization's capacity to adapt and survive in the long term (Barney, 1991). Good performance focuses not only on short-term profits but also on business sustainability and the ability to adapt to market changes. (Kurniasari & Lestari, 2024). According to Hadi et al., (2024) Sustainable performance encompasses increased productivity and efficiency, with a focus on long-term profits and positive social and environmental impacts. Sustainability also means SMEs ' ability to adapt to technological changes and capitalize on new opportunities arising from digitalization.

Inconsistent study results regarding the roles of fintech adoption and financial literacy in the performance and sustainability of MSMEs have created a significant research gap. On the one hand, several researchers have identified a positive, crucial relationship, confirming that high financial literacy and fintech usage directly improve the sustainability of MSMEs. (Papulasih et al., n.d.; Sonni et al., 2025). In fact, Fintech is said to improve performance, though it also carries risks. (Yang et al., 2024). However, a sharp contrast emerges from other findings that show fintech adoption has no significant effect on performance. (Kusumawati et al., 2025; Muttaqin, 2023). Prior research indicated that financial literacy does not exert a significant direct influence on sustainability. (Ramadani et al., 2025).

These conflicting findings underscore the lack of a clear scientific consensus on the actual mechanisms and effectiveness of Fintech and financial literacy. Therefore, more in-depth and specific studies are needed to unravel and explain the root causes of this inconsistency, especially by considering mediating variables and specific regional contexts. This research investigates the influence of fintech adoption and financial literacy on MSME business sustainability, with performance posited as a mediating variable. The empirical focus is on enterprises operating within the Boyolali region. It seeks to examine the effect of fintech adoption and financial literacy on the business sustainability of Msme through their performance. The findings are expected to provide robust empirical evidence on the mediating mechanisms of performance and produce practical implications for MSME practitioners and policymakers in formulating strategies to enhance business resilience and sustainability through the synergy of measurable financial literacy programs and fintech adoption.

Adequate financial knowledge is considered the foundation for MSME players to understand and utilize modern financial tools. Good financial literacy enhances the ability to assess benefits and risks and to integrate digital financial services into business operations. (Chaidir et al., 2025; Lontchi et al., 2023). This capability, in turn, can encourage the adoption of Fintech, improve operational performance through more effective cash and resource management, and directly strengthen resilience and sustainable management practices. (Hamidah et al., 2020; Herliana et al., 2025; Rahayu, 2017). The presence of digital financial technology has the potential to transform the operational processes of Msme. Transaction efficiency, easier access to financing, and market expansion through digital platforms are considered key factors in improving business performance. (Yulianto & Rita, 2023). Can encourage the adoption of Fintech, improve operational performance through more effective cash and resource management, and directly strengthen resilience and sustainable management practices (Safira et al., 2025; Winarsih et al., 2020). Strong business performance, as reflected in increased sales and profitability, is a material foundation for business survival. (Puspitha Sari & Arka, 2023). The ability to manage and monitor this performance is considered crucial for surviving in a dynamic market. (Dermawan, 2019; Kurniasari et al., 2025).

Higher financial literacy is positively and significantly associated with greater customer awareness and acceptance of fintech services. (Lontchi et al., 2023). Additionally, financial literacy enables MSME players to recognize and utilize financial technology. (Kurniasari et al., 2023). Research by Demetrius & Yusbardini (2025) shows that the use of Fintech can improve operations and productivity, as well as contribute to business efficiency and effectiveness. Msme are now able to adopt digital financial services and adapt to the rapid advancement of financial technology. Fintech platforms offer easier access to loans by providing lower operational costs. Efficient and effective cash flow management improves MSME performance. (Kurniasari et al., 2025), ultimately establishing a crucial foundation for long-term business sustainability.

Financial literacy is crucial in finance, as it is necessary to manage financial resources effectively to achieve optimal business performance. (Maulana et al., 2022). Financial literacy is crucial in finance, as it is necessary to manage financial resources effectively to achieve optimal business performance. (Kurniasari et al., 2025). The sustainability of MSMEs is greatly influenced by their business performance, as demonstrated by strong competitiveness and adequate managerial capabilities. Based on this framework, the following hypothesis can be formulated:

H<sub>1</sub>: Financial literacy has a positive and significant effect on the adoption of fintech

H<sub>2</sub>: Financial literacy has a positive and significant effect on MSME performance

H<sub>3</sub>: Financial literacy has a positive and significant effect on the sustainability of MSME businesses.

H<sub>4</sub>: Fintech adoption has a positive and significant effect on MSME performance

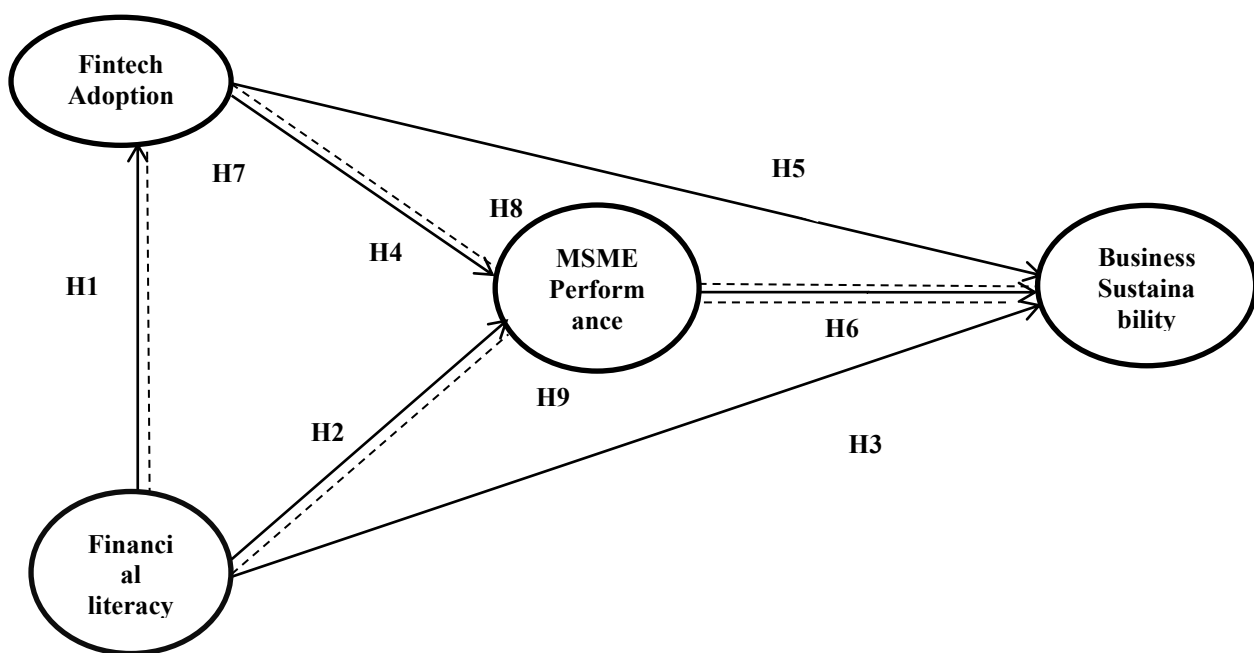
H<sub>5</sub>: Fintech adoption has a positive and significant effect on MSME business sustainability

H<sub>6</sub>: MSME performance has a positive and significant effect on MSME business sustainability

H<sub>7</sub>: Financial literacy has a positive and significant effect on MSME performance with Fintech adoption as a mediating variable

H<sub>8</sub>: Fintech adoption has a positive and significant effect on MSME business sustainability, with MSME performance as a mediating variable

H<sub>9</sub>: Financial literacy has a positive and significant effect on the sustainability of MSME business with MSME performance as a mediating variable



Source: Research Data, 2025

Figure 1. Research Model

## RESEARCH METHOD

This study employed an explanatory quantitative approach to investigate causal relationships and elucidate the mechanisms of influence between variables. To analyze the complex relationship between latent variables involving mediation, this study uses Structural Equation Modeling (SEM) with a Partial Least Squares (PLS-SEM) approach. PLS-SEM was chosen for its robustness to predictive analysis, complex models, and data that do not require meeting the assumption of a multivariate normal distribution, making it suitable for small sample sizes.

The population in this study was Micro, Small, and Medium Enterprises (Msme) operating in Boyolali Regency. Boyolali was chosen as the research location to fill a gap in studies on specific regions that have not been widely explored. The researcher used convenience sampling to collect samples. This study uses primary data collected using a structured questionnaire with a 1-5 Likert scale. The following variables will be tested:

**Table 1.**  
**Research Instruments**

<b>Variable</b>	<b>Operational definition of variables</b>	<b>Indicators</b>	<b>Source</b>
Fintech Adoption (X1)	Fintech refers to the use of digital technology in financial services, enabling MSME players to conduct transactions, access financing, and enhance the effectiveness and efficiency of business financial management.	Perceived Usefulness Perceived ease of use	(Lontchi et al., 2023)
Financial Literacy (X2)	Financial literacy is the capacity of individuals to comprehend financial concepts and manage finances effectively, encompassing knowledge, attitudes, and skills related to income, expenses, savings, loans, and business financial planning.	awareness and attitudes	(Hamidah et al., 2020)
MSME performance (Z)	MSME performance refers to the level of success a business achieves in meeting its predetermined goals, encompassing both financial aspects (profitability and sales) and operational metrics (efficiency, productivity, and service quality).	Financial Performance, Operational Performance, Flexibility,	(Lontchi et al., 2023)
Business Sustainability (Y)	Business sustainability refers to the ability of Msme to continue operating, growing, and developing in the long term through sound financial management, adaptive business strategies, robust organizational structures, and enhanced human resource capacity.	Competitiveness and Management Skills	(Kurniasari et al., 2023)

*Source:* Data processed, 2025

The data collection procedure was conducted in several operational stages over an estimated two-month period. These stages included instrument preparation, distribution of the final questionnaire both offline and online through local MSME networks, and data completeness checks. Data analysis was performed using SmartPLS software in two main stages. First, evaluation of the measurement model (outer model) to ensure instrument quality through convergent validity testing (loading factor value > 0.70 and AVE > 0.50), reliability (Composite Reliability and Cronbach's Alpha values > 0.70), and discriminant validity (Fornell-Larcker and HTMT criteria). Second, testing the structural model (inner model) to test the hypotheses. The significance of direct and indirect effects (mediation effects) was tested using bootstrapping. The predictive power of the model was assessed using R<sup>2</sup>, and the mediation effect was considered significant if the indirect path coefficient had a t-statistic > 1.96 (p-value < 0.05). This entire methodology was designed to ensure a robust, valid, and scientifically accountable analysis.

## RESULTS AND DISCUSSION

The results of this study are presented based on primary data collected from 149 samples located in 4 subdistricts in Boyolali (Boyolali, Teras, Banyudono, and Mojosongo). Data analysis was performed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test relationships among variables. Model evaluation began with the following tests:

Outer Model

**Table 2.**  
**Indicator Reliability, Reliability, and Convergent Validity**

<i>Construct</i>	<i>Indicators</i>	<i>Outer Loading</i>	<i>CA</i>	<i>CR</i>	<i>AVE</i>
<b>Fintech adoption (X1)</b>	X1.1	0.93	0.62	0.83	0.71
	X1.2	0.74			
<b>Financial literacy (X2)</b>	X2.1	0.85	0.73	0.88	0.78
	X2.2	0.92			
<b>Business sustainability (Y)</b>	Y1	0.94	0.59	0.81	0.69
	Y2	0.70			
<b>MSME performance (Z)</b>	Z1	0.92	0.80	0.88	0.71
	Z2	0.81			
	Z3	0.81			

*Source:* Data processed, 2025

Table 2 presents the results of the measurement model assessment, ensuring the quality of the indicators and constructs. All indicators have high outer loading values, confirming that each indicator adequately represents the construct being measured. The Composite Reliability (CR) values for all constructs exceed 0.70, indicating excellent internal reliability. Meanwhile, the Cronbach's Alpha (CA) values for the Financial Literacy and MSME Performance constructs meet the > 0.70 criterion. However, the values for Fintech Adoption (0.62) and Business Sustainability (0.59) are below the generally recommended threshold. In exploratory research with a limited number of indicators per construct, this remains acceptable, especially given that the CR (>0.70) and Average Variance Extracted (AVE) (>0.50) values meet the requirements. (Hair et al., 2021). AVE values that exceed the critical threshold for all constructs prove that convergent validity has been well fulfilled. Accordingly, the results indicate that all constructs are reliably and validly measured through their respective indicators.

**Table 3.**  
**Discriminant validity - Fornell-Larcker criterion**

<b>Construct</b>	<b>Heterotrait-Monotrait Ratio (HTMT)</b>				<b>Fornell-Larcker criterion</b>			
	<b>AF</b>	<b>KBU</b>	<b>KU</b>	<b>LK</b>	<b>AF</b>	<b>KBU</b>	<b>KU</b>	<b>LK</b>
<b>Fintech adoption(AF)</b>					0.84			
<b>business sustainability(KBU)</b>	<b>0.42</b>				0.25	0.83		
<b>MSME performance(KU)</b>	<b>0.40</b>	<b>0.88</b>			0.30	0.68	0.84	
<b>Financial literacy(LK)</b>	<b>0.25</b>	<b>0.95</b>	<b>0.91</b>		0.19	0.67	0.70	0.88

*Source:* Data processed, 2025

As shown in Table 3, the discriminant validity assessment indicates that the research constructs largely meet the established criteria. According to the Fornell-Larcker criterion, the constructs satisfy discriminant validity. The results of the Heterotrait-Monotrait Ratio (HTMT) test also confirm this, although there are two ratio values. The HTMT values for the associations between financial literacy and business sustainability (0.95) and between financial literacy and MSME performance (0.91) slightly exceed the recommended threshold. However, this excess is acceptable given the strong conceptual relationship between the related constructs. Overall, these findings support the uniqueness of each construct in the model, ensuring that they measure distinct concepts.

**Inner Model****Table 4.**  
**VIF Analysis**

<b>Construct</b>	<b>Fintech adoption</b>	<b>Business sustainability</b>	<b>MSME performance</b>	<b>Financial literacy</b>
<b>Fintech adoption</b>		1.10	1.04	
<b>business sustainability</b>				
<b>MSME performance</b>		2.09		
<b>Financial literacy</b>	1.00	1.97	1.04	

Source: Data processed, 2025

The Variance Inflation Factor (VIF) analysis presented in Table 4 indicates no evidence of serious multicollinearity among the predictor variables in the structural model. All VIF values are well below the critical threshold. This finding ensures that the path coefficient estimates in the subsequent analysis are not distorted by high correlations among independent variables, making the hypothesis-testing results reliable.

**Table 5.**  
**Path Analysis**

<b>Hypothesis</b>	<b><math>\beta</math> Values</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics</b>	<b>P Values</b>	<b>keputusan</b>
<b>Fintech adoption -&gt; business sustainability (H5)</b>	0.06	0.06	0.94	0.35	Not supported
<b>Fintech adoption -&gt; MSME performance (H4)</b>	0.18	0.07	2.59	0.01	supported
<b>MSME performance -&gt; business sustainability (H6)</b>	0.40	0.11	3.67	0.00	supported
<b>Financial literacy -&gt; Fintech adoption (H1)</b>	0.19	0.09	2.19	0.03	supported
<b>Financial literacy -&gt; business sustainability (H3)</b>	0.38	0.11	3.39	0.00	supported
<b>Financial literacy -&gt; MSME performance (H2)</b>	0.67	0.05	12.60	0.00	supported

Source: Data Processing, 2025

Table 5 presents the findings of the hypothesis testing for the direct relationship. The path analysis results indicate that financial literacy has a significant and positive impact on fintech adoption, MSME performance, and business sustainability. Meanwhile, fintech adoption has a significant effect on MSME performance, but its direct effect on business sustainability is not significant. Conversely, SME performance is found to have a strong and positive impact on business sustainability. These key findings highlight the pivotal role of financial literacy and the significance of MSME performance in driving sustainability. At the same time, fintech adoption plays a greater role in improving performance than in directly impacting sustainability.

**Table 6.**  
**Mediation Analysis**

<b>Hypothesis</b>	<b><math>\beta</math> Values</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics</b>	<b>P Values</b>	<b>Decision</b>
<b>Fintech adoption -&gt; MSME performance -&gt; business sustainability (H8)</b>	0.07	0.03	2.11	0.04	supported

Hypothesis	$\beta$ Values	Standard Deviation (STDEV)	T Statistics	P Values	Decision
Financial literacy -> MSME performance -> business sustainability (H9)	0.26	0.09	3.06	0.00	supported
Financial literacy -> Fintech adoption -> MSME performance (H7)	0.03	0.02	1.71	0.09	Not supported

Source: Data processed, 2025

The mediation analysis in Table 6 confirms that MSME performance acts as a significant mediator in two pathways: between fintech adoption and business sustainability, and between financial literacy and business sustainability. Conversely, fintech adoption was not found to be a significant mediator of the relationship between financial literacy and SME performance. These findings confirm that improved performance is a crucial mechanism through which financial literacy and technology adoption ultimately contribute to business sustainability.

**Table 7.**  
Coefficient of determination ( $R^2$ ),  $R^2$  Adjusted, and predictive relevance ( $Q^2$ )

Construct	$R^2$	$R^2$ Adjusted	$Q^2$ (=1-SSE/SSO)
Fintech adoption	0.04	0.03	0.01
business sustainability	0.54	0.53	0.33
MSME performance	0.52	0.51	0.37
Financial literacy			

Source: Data processed, 2025

Based on Table 7, this research model shows adequate explanatory and predictive power. The  $R^2$  values for MSME performance and business sustainability are moderate to strong, indicating that the exogenous variables in the model can explain a substantial proportion of the variance in both endogenous constructs. The adjusted  $R^2$  value, which is close to the  $R^2$  value, indicates that the model is not overfitted. Furthermore, the positive  $Q^2$  (predictive relevance) value for all endogenous constructs confirms that the model has good predictive relevance. Overall, this model is considered to have adequate predictive capabilities within this study.

The findings of this study elucidate the mechanism through which financial literacy and fintech adoption influence business sustainability, with MSME performance acting as a key mediator. The principal results indicate that financial literacy exerts a positive and significant influence on fintech adoption, MSME performance, and business sustainability. These results align with the proposed hypotheses (H1, H2, H3) and support the argument that a solid understanding of finance is essential for business actors to leverage digital innovation and manage their businesses effectively.

The positive relationship between financial literacy and fintech adoption (H1) can be explained by the Technology Acceptance Model (TAM). The TAM theory states that technology acceptance is influenced by perceived usefulness and perceived ease of use (Davis, 2014). Financial literacy improves the ability of MSME actors to assess the benefits of fintech; it enhances their ability to evaluate the benefits of Fintech, including transaction efficiency and access to financing, thereby increasing its perceived usefulness. Additionally, a basic understanding of finances makes them more confident in using digital platforms, thereby reducing perceived barriers to technological complexity. These findings are consistent with research by (2023) dan Lontchi et al. (2023), which states that financial literacy increases awareness and acceptance of fintech services.

While fintech adoption has been proven to significantly improve SME performance (H4), its direct impact on business sustainability (H5) is not significant. This is a critical finding that points to a

mediating role. Fintech contributes to improved operational and financial performance through enhanced transaction efficiency, improved cash management, and expanded market access, as found by Demetrius & Yusbardini, (2025) dan Yulianto & Rita, (2023). However, this improvement in performance does not necessarily guarantee long-term sustainability if it is not managed with the right strategy. Sustainability requires more than just short-term profitability; it necessitates competitiveness, adaptability, and resilience in the face of shocks. Thus, Fintech serves as a driver or catalyst for performance, which in turn directly determines sustainability.

MSME performance is empirically shown to exert a strong positive influence on business sustainability (H6). This finding is substantiated by the Resource-Based View (RBV), a theory that attributes sustainable competitive advantage to a firm's internal assets. Specifically, RBV holds that resources are valuable, rare, and difficult to imitate. Within this theoretical framework, financial literacy and fintech adoption constitute key internal resources and organizational capabilities. (Barney, 1991; Mazzei & Michael, 2024). However, these resources must first be transformed into business performance characterized by increased sales, profitability, and operational efficiency. Only then can adaptive capabilities and long-term resilience, which define sustainability, be built. Good performance serves as the material foundation enabling SMEs to reinvest, innovate, and survive in market dynamics, as supported by research by Dermawan, (2019) dan Kurniasari et al., (2025)

Mediation analysis provides deeper insight into how strategic resources translate into sustainable business outcomes. The findings reveal that MSME performance functions as a critical mechanism through which fintech adoption contributes to business sustainability. Specifically, performance fully mediates this relationship, indicating that the value of financial technology is not inherently direct but must first be realized through tangible improvements in operational and financial performance. From a strategic management perspective, fintech serves as an enabler, enhancing transaction efficiency, expanding market access, and optimizing cash flow management. These performance gains subsequently form the foundation for long-term business resilience. In the case of financial literacy, performance plays a partial mediating role. This suggests that financially literate business owners have two distinct pathways to sustainability. Directly, through sound financial judgment and long-term orientation, and indirectly, by applying their financial knowledge to improve day-to-day operations and strategic decision-making. These findings reinforce the proposition that performance improvement is a pivotal channel linking digital innovation and financial competence to sustained competitive advantage.

Conversely, fintech adoption did not mediate the relationship between financial literacy and MSME performance. This implies that financially literate entrepreneurs do not necessarily depend on fintech to enhance their business performance. Instead, they can leverage their financial acumen to drive improvements through direct managerial actions, such as disciplined budgeting, effective debt management, prudent cost control, and strategic reinvestment, without first adopting digital financial tools. (Kurniasari et al., 2023; Maulana et al., 2022). From a resource-based perspective, this highlights that financial literacy itself constitutes a core internal competency that can independently generate performance gains. While fintech remains a valuable external resource, its benefits are contingent upon effective utilization, and its absence does not diminish the capacity of financially literate owners to achieve strong performance through well-established managerial practices.

The finding that Fintech has no significant direct effect on sustainability (H5) appears to contradict several studies, including those by Papulasih et al. (n.d.) dan Sonni et al. (2025). However, this contradiction is answered by the mediation finding. Previous studies may have observed a positive total effect without analyzing the role of performance as a mediator. By including performance as a mediating variable, this study successfully isolated and demonstrated that Fintech requires performance as an "intermediary" to have an impact on sustainability. Theoretically, this study integrates TAM and RBV to provide a more comprehensive framework. TAM explains the initial adoption stage (from financial literacy to Fintech), while RBV explains how these resources (literacy and Fintech) are converted into sustainable competitive advantage through performance. However, the limitations of this

study must be acknowledged, including the Cronbach's Alpha value for the Fintech Adoption and Business Sustainability variables, which is below 0.7, despite the CR and AVE still being adequate. This suggests that the indicators used to measure these constructs may still be limited and warrant further enrichment in future studies. Additionally, the use of convenience sampling in a specific region (Boyolali) limits the generalizability of the findings.

## CONCLUSION AND RECOMMENDATIONS

This study confirms that financial literacy exerts a significant and positive influence on both the sustainability of MSMEs and their business performance, thereby establishing it as a foundational capability within the entrepreneurial ecosystem. In contrast, fintech adoption does not directly affect sustainability. Rather, its contribution is fully realized through the mediating role of MSME performance. These findings position business performance as a central variable in the sustainability model, functioning as a full mediator in the fintech-sustainability relationship and a partial mediator between financial literacy and sustainability outcomes. Theoretically, this research extends the Resource-Based View (RBV) by demonstrating that internal capabilities. Namely, financial literacy and fintech adoption do not directly yield competitive advantage; they must first be translated into superior performance. This study contributes a nuanced understanding of RBV by identifying business performance as the critical mechanism through which strategic resources are converted into sustained competitive advantage. Unlike prior studies that treat performance merely as an outcome, this research conceptualizes it as an essential mediating process, thereby advancing theoretical discourse on how MSMEs can achieve long-term sustainability through the strategic orchestration of financial and technological competencies.

This study has limitations, particularly in the sample scope, which covers only MSMEs in Boyolali Regency. Therefore, generalization of the findings requires caution, as several construct measurement indicators show Cronbach's Alpha reliability values below the recommended threshold, despite meeting convergent and discriminant validity. For further research, it is recommended to expand the sample coverage to a broader geographical area, refine the measurement instruments through literature studies and focus group discussions (FGDs) to improve content validity and construct reliability, and test the model by including other contextual variables such as regulatory support, social capital, or entrepreneurial orientation to enrich the analysis and explanatory power of the model. From a practical perspective, the implications of this research underscore the importance of synergistic MSME empowerment programs that combine financial literacy training with technology adoption assistance, with a focus on improving real performance capabilities as a bridge to sustainable businesses.

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