

## The Influence of Financial Anxiety, Financial Literacy, and Financial Digitalization on the Financial Stability of MSMEs in Mataram City

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### Keywords:

Financial Digitalization,  
Financial Anxiety, Financial  
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### Abstract

*The financial stability of MSMEs in Mataram City is threatened by financial anxiety, low financial literacy, and suboptimal digitalization, with MSMEs dominating 10,471 micro-business units vulnerable to economic fluctuations. This study aims to examine the effect of financial anxiety, financial literacy, and financial digitalization on the financial stability of MSME actors. Using a causal quantitative design with PLS-SEM, the population of all MSMEs in Mataram (10,471 units), a sample of 120 purposive respondents, a 5-point Likert questionnaire instrument, and SmartPLS 4.0 analysis. The results show that financial literacy has a significant positive effect (coefficient 0.642,  $p = 0.000$ ), financial anxiety has a significant positive effect (0.157,  $p = 0.030$ ), while digitalization is insignificant (0.057,  $p = 0.461$ ), with an R-square of 0.598. The conclusion recommends financial literacy training for the Cooperative Office to increase MSME resilience.*

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## INTRODUCTION

The financial stability of Micro, Small, and Medium Enterprises (MSMEs) globally is under significant pressure post-pandemic, with World Bank data indicating that 40% of MSMEs in developing countries will experience liquidity disruptions by 2024. This trend is exacerbated by economic uncertainty, with fintech contributing positively to stability through efficiency, although in some regions it is causing new volatility (Koranteng, 2024). The impact includes a decline in global GDP of up to 2-3% due to MSME failures, according to grand theories such as Financial Capability Theory, which emphasizes the role of literacy and behavior in financial resilience (Himawan, 2025).

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The evolution of theoretical thinking began with Behavioral Finance Theory, which highlights psychological biases such as financial anxiety in decision-making, and progressed to the Technology Acceptance Model (TAM) for digitalization (Ozili, 2018, cited in the thesis file). Recent theories, such as Liquidity Management Theory, integrate psychological and digital factors to explain the resilience of MSMEs (Sari Wibowo, 2021).

Financial anxiety emerges as a specific issue, with MSMEs experiencing stress due to limited access to capital and loan risks, leading to a cycle of undercapitalization (Ackah et al., 2024). The urgency of a solution is evident in the 25% increase in the risk of business failure in Southeast Asia by 2025 due to this factor (Priyadi et al., 2020, cited in ). A synthesis of supporting quotations suggests that anxiety undermines risk management, while an evaluation of conflicting quotations

identifies a debate: some studies find moderate stress encourages caution, but the majority agree that the negative impact is dominant (Archuleta et al., 2013).

Low financial literacy exacerbates instability, with a systematic review of 44 Scopus papers (2007–2025) concluding that literacy improves budgeting and credit access, reducing financial distress (Nadir et al., 2026). However, there is a contradiction in that literacy is not always significant without consistent behavior (Lailatul & Susandini, 2024).

In Indonesia, MSMEs contributed 61% of GDP in 2024, but in Mataram City, this number reached 10,471 units, dominated by micro-enterprises that are vulnerable to fluctuations (West Nusa Tenggara Cooperatives Office, 2024). Specific characteristics of Mataram include dependence on daily cash flow and low digital adoption, exacerbating anxiety and low literacy (Nofranita et al., 2024). The common methodology in related studies is SEM-PLS to test simultaneous effects, as in a sample of 375 Indonesian MSMEs (UMM ejournal, 2024).

A research gap lies in the simultaneous integration of financial anxiety, literacy, and digitalization into the stability of local MSMEs. Global studies focus on individual variables, while the Indonesian context lacks empirical evidence in regions like Mataram (Safii et al., 2025). The need for new studies arises from the contradiction: digitalization is positive in Gorontalo but insignificant without literacy (Octavina, 2021; Lailatul & Susandini, 2024). Only a few have used a survey of MSMEs in Mataram with PLS-SEM to fill this gap (Sari et al., 2026).

This study aims to examine the influence of financial anxiety, financial literacy, and digitalization on the financial stability of MSMEs in Mataram using SEM-PLS. The theoretical contribution enriches Behavioral Finance and TAM with a local integrative model (Maulana, 2023). Practical benefits include recommendations for digital literacy training for the Cooperatives Office, increasing MSME resilience by up to 20%, as in the Palu study (Goldenratio, 2025).

## METHOD

This study uses a quantitative design with a causal associative approach to examine the influence of financial anxiety, financial literacy, and financial digitalization on the financial stability of MSMEs in Mataram City. This approach is suitable for analyzing causal relationships between variables through empirical hypothesis testing, as recommended in similar studies on MSMEs (Kurniawan et al., 2023). A cross-sectional design was applied with a single data collection over a specific period to capture the actual conditions of respondents. A positivist approach underpins this process, where numerical data are analyzed objectively using inferential statistics. This design ensures the generalizability of the findings to the broader MSME population, with a focus on the validity and reliability of the measurement instruments (Hair et al., 2019).

Primary data were collected through a survey using a 5-point Likert-scale questionnaire to measure respondents' perceptions of the independent and dependent variables. The instrument was developed from theoretical indicators such as the Financial Anxiety Scale and the Financial Literacy Scale, which have been validated in the MSME context (Archuleta et al., 2013; Lusardi & Mitchell, 2020). The questionnaire was distributed online and directly to respondents to maximize the response rate. The instrument testing procedure included convergent and discriminant validity tests using outer loadings and an Average Variance Extracted (AVE) >0.5. This method is commonly used in MSME financial research to ensure high-quality data before further analysis (Safii et al., 2025).

The study population consisted of all registered MSMEs in Mataram City, totaling 10,471 business units based on data from the NTB Cooperatives and SMEs Office in 2024. The sample was determined using the formula of Hair et al. (2014) with a minimum of 10 times the number of indicators (16 indicators yielding a minimum of 160 samples), plus a margin for non-response. A purposive sampling technique with the criteria of respondents being active MSME owners/managers with at least 2 years of experience was applied to represent sub-district variations. This sample size is consistent with Indonesian MSME studies that use quota or

purposive sampling to maintain representativeness (Siswoyo et al., 2020). Subjects focused on dominant micro-business actors to reflect real financial stability challenges.

Data analysis was performed using Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 software to test the measurement (outer model) and structural (inner model) models. Initial descriptive tests included mean, standard deviation, and frequency for variable descriptions, followed by reliability evaluation (Cronbach's Alpha >0.7, Composite Reliability >0.7). Hypothesis testing involved path coefficients, t-values (>1.96), R-square, f-square, and Q-square for predictive relevance. A bootstrap approach of 5,000 subsamples ensured robust inference (Hair et al., 2019). PLS-SEM was chosen because it is suitable for non-normal samples and complex predictive models in MSMEs, as applied in a recent financial literacy study (Kilay et al., 2022).

## RESEARCH RESULT

### Respondent Overview

**Table 1 Respondent Characteristics**

No.	Category	Amount	Percentage (%)
<b>Address</b>			
1.	Ampenan	20	17
2.	Sekarbela	18	15
3.	Mataram	10	8
4.	Selaparang	19	16
5.	Cakranegara	20	17
6.	Sandubaya	33	27
<b>Total</b>		<b>120</b>	<b>100</b>
<b>Length of Business</b>			
1.	< 1 year	37	31
2.	1–3 years	58	48
3.	4–6 years	18	15
4.	> 6 years	7	6
<b>Total</b>		<b>120</b>	<b>100</b>
<b>Type of business</b>			
1.	Trade in Goods	66	55
2.	Service	3	2
3.	Manufacturing/Production	6	5
4.	Culinary	43	36
5.	Other:	2	2
<b>Total</b>		<b>120</b>	<b>100</b>
<b>Business Scale</b>			
1.	Micro	91	76
2.	Small	23	19
3.	Intermediate	6	5
<b>Total</b>		<b>120</b>	<b>100</b>
<b>Number of Workers</b>			
1.	1–4 people	91	76
2.	5–9 people	21	17
3.	10–19 people	1	1
4.	≥ 20 people	7	6
<b>Total</b>		<b>120</b>	<b>100</b>
<b>Average Turnover per Month</b>			
1.	< Rp. 10 million	40	33
2.	Rp. 10–25 million	23	19
3.	Rp. 25–50 million	13	11

4. > Rp. 50 million	44	37
<b>Total</b>	<b>120</b>	<b>100</b>
<b>Types of Business Financial Recording used</b>		
1. There isn't any	0	0
2. Manual (book/written notes)	0	0
3. Digital (financial applications)	59	49
4. Hybrid (Manual and Digital)	61	51
<b>Total</b>	<b>120</b>	<b>100</b>
<b>Frequency of Use of Digital Financial Services</b>		
1. Never	0	0
2. Seldom	19	16
3. Often	56	47
4. Very often	45	37
<b>Total</b>	<b>120</b>	<b>100</b>

Source: Processed Primary Data, 2026

### Description of Research Variables

#### 1. Financial Anxiety (X1)

**Table 2 Description of Variable X1**

Code	Statement Items	Mean	Category
X1.1	I often feel worried about the financial condition of my business.	4.13	Tall
X1.2	I feel uneasy when I think about business finances.	3.79	Tall
X1.3	I find business income difficult to predict.	4.43	Very high
X1.4	I am worried that business income will not be stable every period.	4.37	Very high
X1.5	I'm worried that my business won't survive in the long run.	4.19	Tall
X1.6	I often think about the possibility of business failure.	4.18	Tall
<b>Mean of Variable X1</b>		<b>4.18</b>	<b>Tall</b>

Source: Processed Primary Data, 2026

#### 2. Financial Literacy (X2)

**Table 3 Description of Variable X2**

Code	Statement Items	Mean	Category
X2.1	I understand how to manage business income and expenses.	4.13	Tall
X2.2	I understand the importance of business financial records.	4.36	Very high
X2.3	I understand the risks of using debt in business.	4.02	Tall
X2.4	I know how to manage business debt well.	3.87	Tall
X2.5	I understand the importance of having a business reserve fund.	4.58	Very high
X2.6	I know how to prepare savings for business needs.	4.47	Very high

<b>Average of Variable X2</b>	<b>4.24</b>	<b>Very high</b>
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*Source: Processed Primary Data, 2026*

3. Financial Digitalization (X3)

**Table 4 Description of Variable X3**

<b>Code</b>	<b>Statement Items</b>	<b>Mean</b>	<b>Category</b>
X3.1	Digital financial services make my business transactions easier.	4.38	Very high
X3.2	Digital financial technology increases the efficiency of my business.	4.33	Very high
X3.3	I often use digital financial services in my business.	4.12	Tall
X3.4	I rely on digital technology for my business financial transactions.	3.83	Tall
X3.5	I believe digital financial services are safe to use.	4.19	Tall
X3.6	I believe that digital financial technology can be relied upon for business.	4.12	Tall
<b>Average of Variable X3</b>		<b>4.16</b>	<b>Tall</b>

*Source: Processed Primary Data, 2026*

4. Financial Stability (Y)

**Table 5 Description of Variable Y**

<b>Code</b>	<b>Statement Items</b>	<b>Mean</b>	<b>Category</b>
Y1	My business is able to pay its financial obligations on time.	4	Tall
Y2	I rarely have trouble paying my business obligations.	4	Tall
Y3	My business cash flow is relatively stable.	4	Tall
Y4	Business income is able to cover operational expenses.	4	Tall
Y5	My business has a reserve fund for emergencies.	4	Tall
Y6	I feel my business is ready to face financial risks.	4	Tall
<b>Average of Variable Y</b>		<b>4</b>	<b>Tall</b>

*Source: Processed Primary Data, 2026*

**Table 6 Descriptive Statistics**

<b>Variables</b>	<b>Financial Anxiety (X1)</b>	<b>Financial Literacy (X2)</b>	<b>Financial Digitalization (X3)</b>	<b>Financial Stability (Y)</b>
<b>N (number of data)</b>	120	120	120	120
<b>Mean</b>	4.18	4.24	4.16	4
<b>Median</b>	4	4	4	4
<b>Mode</b>	5	5	5	4

<b>Maximum</b>	5	5	5	5
<b>Minimum</b>	1	1	1	1
<b>Range</b>	4	4	4	4
<b>Standard Deviation</b>	0.95	0.86	0.85	1

Source: Processed Primary Data, 2026

## Research Instrument Testing

### 1. Outer Loading

**Table 7 Outer Loading**

	Financial Anxiety	Financial Literacy	Financial Digitalization	Financial Stability
X.1.1	0.768			
X.1.2	0.845			
X.1.3	0.714			
X.1.4	0.842			
X.1.5	0.881			
X.1.6	0.822			
X.2.1		0.798		
X.2.2		0.839		
X.2.3		0.712		
X.2.4		0.818		
X.2.5		0.718		
X.2.6		0.912		
X.3.1			0.866	
X.3.2			0.827	
X.3.3			0.822	
X.3.4			0.741	
X.3.5			0.891	
X.3.6			0.816	
Y1				0.816
Y2				0.905
Y3				0.858
Y4				0.895
Y5				0.824
Y6				0.832

Source: Data processed by SmartPLS 4, 2026

**Table 8 Outer Loading**

	Financial Anxiety	Financial Literacy	Financial Digitalization	Financial Stability
X.1.1	0.768			
X.1.2	0.845			
X.1.3	0.714			
X.1.4	0.842			
X.1.5	0.881			
X.1.6	0.822			
X.2.1		0.798		
X.2.2		0.839		
X.2.3		0.712		
X.2.4		0.818		

X.2.5	0.718	
X.2.6	0.912	
X.3.1		0.866
X.3.2		0.827
X.3.3		0.822
X.3.4		0.741
X.3.5		0.891
X.3.6		0.816
Y1		0.816
Y2		0.905
Y3		0.858
Y4		0.895
Y5		0.824
Y6		0.832

Source: Data processed by SmartPLS 4, 2026

2. Average Variance Extracted (AVE)

**Table 9 Average Variance Extracted (AVE)**

	Average variance extracted (AVE)	Information
Financial Anxiety	0.662	VALID
Financial Literacy	0.644	VALID
Financial Digitalization	0.686	VALID
Financial Stability	0.732	VALID

Source: Data processed by SmartPLS 4, 2026

**Table 10 Average Variance Extracted (AVE)**

	Average variance extracted (AVE)	Information
Financial Anxiety	0.662	VALID
Financial Literacy	0.644	VALID
Financial Digitalization	0.686	VALID
Financial Stability	0.732	VALID

Source: Data processed by SmartPLS 4, 2026

3. Fornell-Larcker Criterion

**Table 11 Fornell-Larcker Criterion**

	Financial Anxiety	Financial Literacy	Financial Digitalization	Financial Stability
Financial Anxiety	0.814			
Financial Literacy	0.475	0.802		
Financial Digitalization	0.555	0.725	0.828	
Financial Stability	0.493	0.757	0.609	0.856

Source: Data processed by SmartPLS 4, 2026

## 4. Heterotrait-Monotrait Ratio (HTMT)

**Table 12 Heterotrait-Monotrait Ratio (HTMT)**

	Financial Anxiety	Financial Literacy	Financial Digitalization	Financial Stability
Financial Anxiety				
Financial Literacy	0.525			
Financial Digitalization	0.603	0.786		
Financial Stability	0.490	0.820	0.621	

Source: Data processed by SmartPLS 4, 2026

## 5. Construct Reliability

**Table 13 Composite Reliability and Cronbach's Alpha**

	Cronbach's alpha	Composite reliability (rho c)
Financial Anxiety	0.898	0.921
Financial Literacy	0.887	0.915
Financial Digitalization	0.910	0.929
Financial Stability	0.927	0.942

Source: Data processed by SmartPLS 4, 2026

**Structural Model Assessment (Inner Model)**

## 1. Multicollinearity Test (VIF)

**Table 14 Collinearity Statistics (VIF)**

	VIF
Financial Anxiety -> Financial Stability	1,467
Financial Literacy -> Financial Stability	2,142
Financial Digitalization -> Financial Stability	2,396

Source: Data processed by SmartPLS 4, 2026

## 2. Coefficient of Determination (R-square)

**Table 15 Coefficient of Determination (R-square)**

	R-square	R-square adjusted
<b>Financial Stability</b>	0.598	0.587

Source: Data processed by SmartPLS 4, 2026

3. Effect Size (f-square) (f<sup>2</sup>)**Table 16 Effect Size (f-square) (f<sup>2</sup>)**

	f-square
Financial Anxiety -> Financial Stability	0.042
Financial Literacy -> Financial Stability	0.478
Financial Digitalization -> Financial Stability	0.003

Source: Data processed by SmartPLS 4, 2026

4. Predictive Relevance (Q-Square) (Q<sup>2</sup>)

**Table 17 Predictive Relevance (Q-Square) (Q<sup>2</sup>)**

	Q <sup>2</sup> predict
<b>Financial Stability</b>	0.572

*Source: Data processed by SmartPLS 4, 2026*

### Hypothesis Test Results

**Table 18 Path Coefficients**

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV)	P values
Financial Anxiety -> Financial Stability	0.157	0.157	0.072	2.175	0.030
Financial Literacy -> Financial Stability	0.642	0.640	0.055	11,590	0.000
Financial Digitalization -> Financial Stability	0.057	0.059	0.077	0.737	0.461

*Source: Data processed by SmartPLS 4, 2026*

**Table 19 95% Confidence Interval**

	5.0%	95.0%
<b>Financial Anxiety -&gt; Financial Stability</b>	0.051	0.266
<b>Financial Literacy -&gt; Financial Stability</b>	0.550	0.726
<b>Financial Digitalization -&gt; Financial Stability</b>	-0.063	0.188

*Source: Data processed by SmartPLS 4, 2026*

## DISCUSSION

### The Impact of Financial Anxiety on the Financial Stability of MSMEs in Mataram City

Based on the test results in Table 4.23 Path Coefficients, financial anxiety has a significant effect on financial stability with a coefficient of 0.157, a t-statistic of 2.175, and a p-value of 0.030. However, the direction of the effect is positive, inconsistent with the initial hypothesis that assumed a negative effect. Therefore, H1 is rejected. Theoretically, in the Behavioral Finance Theory proposed by Shefrin (2000), psychological factors such as anxiety and emotions can influence financial decision-making. Generally, financial anxiety is assumed to have a negative impact because it can reduce rationality in financial management. Previous research also shows that financial stress is correlated with financial instability (Archuleta et al., 2013). However, the results of this study show a different phenomenon, where anxiety actually encourages MSMEs in Mataram City to be more careful in managing cash flow, controlling expenses, and anticipating business risks. In the context of business competition and economic uncertainty, anxiety can function as an adaptive control mechanism, thereby increasing business financial stability, although the direction of its influence does not align with the initial research assumptions.

### The Influence of Financial Literacy on the Financial Stability of MSMEs in Mataram City

The results of the study indicate that financial literacy has a positive and significant effect on financial stability with a coefficient of 0.642, a t-statistic of 11.590, and a p-value of 0.000, thus

H2 is accepted. Theoretically, according to the Financial Services Authority (OJK, 2020), financial literacy is the knowledge, skills, and beliefs that influence attitudes and behavior in financial decision-making to achieve well-being. Furthermore, Chen and Volpe (1998) stated that individuals with a high level of financial literacy tend to be able to make more effective and rational financial decisions. These results are in line with research by Sriyono et al. (2024) which found that financial literacy has a significant effect on the stability and sustainability of MSMEs, as well as research by Yuliana et al. (2022) which showed that financial literacy improves the financial management behavior of business actors. Field phenomena indicate that MSME actors in Mataram City who have good financial understanding tend to keep regular financial records, separate personal and business finances, and are able to manage working capital more effectively. This makes financial literacy the most dominant factor in maintaining the financial stability of MSMEs.

### **The Impact of Financial Digitalization on the Financial Stability of MSMEs in Mataram City**

Based on the test results, financial digitalization does not significantly affect financial stability with a coefficient of 0.057, a t-statistic of 0.737, and a p-value of 0.461, thus H3 is rejected. Theoretically, the concept of Financial Technology (Fintech Theory) explains that the use of digital technology in financial services can increase efficiency, transparency, and access to financial services (Gomber et al., 2018). Research by Destiari (2025) and Siampa et al. (2024) also shows that digitalization and fintech can improve the performance and sustainability of MSMEs. However, in the context of this research, the phenomenon occurring in Mataram City shows that the use of digitalization is still limited to payment transactions and has not been fully utilized for recording or planning business finances. This indicates that the existence of technology alone is not enough to improve financial stability without being supported by literacy skills and optimal utilization. Therefore, financial digitalization has not been a determining factor in the financial stability of MSMEs in this study.

Overall, of the three hypotheses tested, only Financial Literacy was shown to have a positive and significant effect on the financial stability of MSMEs in Mataram City at a 95% confidence level. Financial Anxiety proved significant, but its direction was inconsistent with the initial hypothesis, while Financial Digitalization showed no significant effect. This confirms that financial knowledge and understanding are key factors in maintaining the financial stability of MSMEs.

### **CONCLUSION**

This study found that financial literacy has the strongest positive and significant influence on the financial stability of MSMEs in Mataram City, with a path coefficient of 0.642 and a p-value of 0.000, while financial anxiety has a significant effect although in a positive direction (coefficient 0.157, p-value 0.030), and financial digitalization has no significant effect (coefficient 0.057, p-value 0.461). The overall model explains 59.8% of the variation in financial stability (R-square 0.598), with literacy as the dominant predictor supporting the Financial Capability Theory in the local context. Practical implications include recommendations for the NTB Cooperatives Office to conduct integrated financial literacy training, which can increase the resilience of MSMEs to economic fluctuations. The study includes a sample size of 120 respondents limited to MSMEs in Mataram City, a cross-sectional design that does not capture longitudinal dynamics, and potential self-report bias from perception-based questionnaires. Further research is recommended to expand the sample to other provinces, integrate moderating variables such as business age, or use mixed-methods with secondary financial data for stronger validation.

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