

Financial Management Behavior in the Digital Era: The Role of Financial Literacy, Financial Technology, and Financial Attitude with Financial Self-Efficacy Moderation (Empirical Study on MSMEs in Pasirian District)

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ABSTRACT

This study aims to develop an integrative model of financial management behavior based on cognitive, technological, and psychological factors, incorporating financial self-efficacy as a moderating variable in MSMEs in semi-rural areas. The study used a quantitative approach with explanatory design and Partial Least Squares–Structural Equation Modeling (PLS-SEM) analysis of 83 MSME actors in Pasirian District. The results of the study show that financial literacy and financial technology do not have a significant effect on financial management behavior, whereas financial attitude does. Financial self-efficacy has been shown to strengthen the relationship between financial literacy and financial management behavior, but it does not moderate the relationship between financial technology and financial attitude. These findings show the phenomenon of the knowledge behavior gap and utilization gap in MSMEs. The study concluded that the financial management behavior of MSMEs is more influenced by psychological factors than cognitive and technological factors.

Keywords: Financial Management Behavior; Financial Literacy; Financial Technology; Financial Attitude; Financial Self-Efficacy



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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are recognized as the backbone of Indonesia's economy due to their substantial contribution to employment generation, poverty reduction, and national economic growth. According to the Ministry of Cooperatives and SMEs of the Republic of Indonesia (2024), MSMEs account for more than 99% of all business entities and contribute approximately 61% of Indonesia's Gross Domestic Product (GDP), while absorbing around 97% of the national workforce. Despite their significant economic contribution, many MSMEs continue to face serious challenges in maintaining sustainable business performance, particularly in financial management. Weak financial planning, inadequate budgeting, poor cash-flow management, and limited financial decision-making capabilities remain persistent obstacles that hinder business sustainability and competitiveness (OECD, 2023; World Bank, 2022). The rapid development of digital technology has transformed the business environment and created new opportunities for MSMEs to improve financial management practices. The emergence of Financial Technology (FinTech), digital payment systems, mobile banking, and online financial services has enabled MSMEs to access financial products more efficiently and manage business transactions more

effectively (Gomber et al., 2023). Nevertheless, technological advancement alone does not guarantee improvements in financial management behavior. Financial management behavior, which refers to an individual's ability to plan, organize, control, and evaluate financial activities, remains strongly influenced by cognitive, technological, and psychological factors (Xiao, 2023).

Financial literacy has long been recognized as one of the most important determinants of financial management behavior. Individuals with higher financial literacy are generally expected to make better financial decisions because they possess sufficient knowledge and understanding of financial concepts, financial risks, and financial products (Lusardi & Messy, 2023). However, previous empirical findings remain inconsistent. Several studies found that financial literacy significantly improves financial management behavior (Fatmawati et al., 2023; Widjayanti et al., 2025), whereas other studies reported that financial literacy has no direct effect because financial knowledge alone is insufficient to encourage behavioral change without psychological readiness (Bongomin et al., 2022). These contradictory findings indicate the existence of a knowledge–behavior gap, in which individuals possess adequate financial knowledge but fail to translate that knowledge into actual financial practices. Similar inconsistencies also occur in studies examining the role of Financial Technology. The Technology Acceptance Model (TAM) explains that technology adoption is influenced by perceived usefulness and perceived ease of use, which subsequently improve individual performance (Davis, 1989). Accordingly, FinTech adoption should facilitate better financial management by providing efficient transaction systems, digital bookkeeping, and financial planning tools (Gomber et al., 2023). Nevertheless, empirical evidence remains inconclusive. Several researchers found that financial technology significantly improves financial management behavior (Lestari et al., 2024; Sunarko & Sutrisno, 2025), whereas others concluded that MSMEs mainly utilize fintech for payment transactions rather than strategic financial planning, resulting in an insignificant influence on financial management behavior (Luckandi, 2019; Hasan et al., 2023). These inconsistent findings demonstrate the existence of a utilization gap, indicating that technology adoption does not necessarily lead to better financial behavior.

Beyond cognitive and technological factors, recent behavioral finance studies increasingly emphasize the importance of psychological characteristics in shaping financial behavior. Financial attitude reflects an individual's beliefs, values, and evaluation regarding financial management, whereas financial self-efficacy refers to one's confidence in managing financial resources effectively (Farrell et al., 2022; Prasad et al., 2024). According to Social Cognitive Theory (Bandura, 1986), self-efficacy serves as an important psychological mechanism that transforms knowledge into actual behavior because individuals who possess stronger confidence are more likely to apply their knowledge when making financial decisions. Consequently, psychological factors may explain why individuals with similar levels of financial literacy often demonstrate different financial management behaviors. Although previous studies have extensively investigated financial literacy, financial technology, financial attitude, and financial self-efficacy, several important research gaps remain. First, an empirical gap exists because previous studies have produced inconsistent findings regarding the influence of financial literacy and financial technology on financial management behavior (Bongomin et al., 2022; Lestari et al., 2024; Widjayanti et al., 2025). Second, a contextual gap exists because most previous studies have focused on university students, urban communities, or MSMEs located in metropolitan areas, whereas empirical evidence from semi-rural MSMEs remains limited. Consequently, the determinants of financial management behavior in semi-rural regions may differ due to variations in digital infrastructure, business characteristics, and financial capability (OECD, 2023). Third, a theoretical gap exists because previous research generally examined cognitive, technological, and psychological factors independently without integrating them into a comprehensive behavioral framework capable of explaining how these factors interact in influencing financial management behavior.

Pasirian District, Lumajang Regency, represents a semi-rural area where MSMEs have increasingly adopted digital financial services but still encounter limitations in digital literacy, financial capability, and technological readiness. Most MSMEs operate as family-owned businesses with relatively simple financial management systems. Therefore, Pasirian provides an appropriate research setting for investigating whether cognitive factors, technological adoption, and psychological characteristics interact differently compared with MSMEs operating in urban

environments. Accordingly, this study proposes an integrative model of financial management behavior by simultaneously examining the effects of financial literacy, financial technology, and financial attitude while positioning financial self-efficacy as a moderating variable. Unlike previous studies that primarily focused on direct relationships, this study investigates the conditional role of financial self-efficacy in bridging both the knowledge–behavior gap and the utilization gap among MSMEs in semi-rural areas. Theoretically, this study contributes by integrating Behavioral Finance Theory, Social Cognitive Theory, and the Technology Acceptance Model (TAM) into a comprehensive framework explaining financial management behavior. Practically, the findings are expected to provide valuable recommendations for policymakers, financial institutions, and MSME development agencies in designing more effective financial literacy programs, digital financial inclusion policies, and behavioral interventions to improve the financial management capabilities of MSMEs.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Behavioral Finance Theory explains that individual financial decisions are not always based on rational considerations, but rather are influenced by psychological, cognitive, and emotional factors. This theory developed as a critique of the assumption of rationality in traditional financial theory, specifically *the Efficient Market Hypothesis* (EMH). Through *Prospect Theory*, Kahneman and Tversky (1979) stated that individuals tend to be more sensitive to *loss aversion* than profit, so financial decisions often deviate from completely rational behavior. In addition, Behavioral Finance Theory emphasizes the limitations of an individual's ability to process information (bounded rationality). According to Simon (1957), individuals often use heuristics or simple rules in decision-making, such as overconfidence, anchoring, and mental accounting. These biases can affect an individual's financial behavior, including in managing income, savings, investments, and debt. In addition to cognitive factors, financial attitudes and emotions also play an important role in shaping a person's financial behavior (Thaler, 1985). In the context of the digital era, Behavioral Finance Theory is increasingly relevant because the development of financial technology (fintech) can influence individual financial management behavior. Ease of access and digital financial transactions have the potential to increase consumptive behavior and impulsive decision-making. This theory views financial management behavior as the result of an interaction between cognitive, affective, and environmental factors. In addition, financial self-efficacy plays a role in increasing an individual's confidence to manage finances effectively and control various behavioral biases that arise in the financial decision-making process (Lown, 2022). Therefore, Behavioral Finance Theory is relevant to be used as a grand theory to explain the influence of financial literacy, financial attitude, financial technology, and financial self-efficacy on financial management behavior.

Financial Management Behavior

Financial management behavior is an individual's ability to manage finances through attitudes and behaviors that include planning, budgeting, controlling, and evaluating finances in daily life, as explained by Arsyntania (2023). According to Ida and Dwinta in Astuti (2023), individuals with good financial management behavior tend to be able to manage budgets, save, control expenses, and manage financial obligations in a disciplined and responsible manner. Positive financial management behavior also shows the individual's ability to carry out financial plans, evaluate financial conditions, and make improvements to financial problems faced in order to achieve financial well-being. In this study, the indicators of financial management behavior refer to Dew and Xiao (2011) in Atikah & Kurniawan (2020a), namely consumption, cash-flow management, saving and investment, and credit management.

Financial Literacy

Financial literacy is an individual ability that includes knowledge, understanding, attitudes, and skills in managing personal finances effectively and responsibly to support short-term and long-term financial decision-making, as explained by Elitasari (2022), Humaira (2018), and Alexander (2019). Financial literacy plays an important role in shaping good financial behavior, such as budgeting, managing expenses, saving, investing, and managing debt appropriately to improve individual financial well-being (Dayanti, 2020). According to Amanita Novi Yushita (2017), financial literacy

includes understanding basic financial knowledge, deposits and loans, investments, and protection or insurance needed in personal financial management. In this study, the financial literacy indicator refers to Sakkinah and Mudakir (2018) in Atikah & Kurniawan (2020b), namely financial knowledge, financial attitude, financial behavior, financial training, and financial skills.

Financial Technology

Financial Technology (fintech) is an innovation in the field of financial services that utilizes digital technology to improve the efficiency, convenience, and accessibility of financial services, so that various activities such as payments, financing, investment, and financial management can be carried out faster and more practically than conventional systems (Gomber, 2023). According to Suryono (2023), fintech not only presents innovative financial products and business models but also encourages changes in people's financial behavior through the digitization of transactions and increasing financial inclusion. In the context of the digital economy, fintech plays an important role in supporting the effectiveness of financial management of individuals and business actors through various services such as digital payments, peer-to-peer lending, digital banking, and financial management tools (Nugroho, 2022). In this study, the financial technology indicator refers to Willianti (2020), namely usefulness, ease of use, website design, system availability, privacy, and safety.

Financial Attitude

Financial attitude is an individual's views, assessments, and mental conditions towards financial management that are reflected in daily financial behavior, such as how to spend, save, and manage money wisely, as explained by Mardhatillah (2020), Sutanti (2019), and Humaira (2018). Financial attitude shows how individuals apply financial principles through sound decision-making and effective resource management to achieve and maintain financial stability. According to Humaira (2018), a positive financial attitude is supported by good financial knowledge, so that it can encourage more responsible and directed financial management practices. In this study, the *financial attitude* indicators used refer to Humaira (2018), namely orientation to personal finance, debt philosophy, money security, and assessment of personal finance.

Financial Self-Efficacy

Financial self-efficacy is an individual's belief in his or her ability to manage finances effectively, including financial decision-making, spending control, financial planning, and the ability to deal with financial risks, as described by Farrell (2022) and Prakash (2022). In this study, financial self-efficacy is seen as a psychological factor that encourages individuals to apply financial knowledge into good financial management behaviors, such as budgeting, saving, and managing finances in a disciplined manner (Prasad, 2024). The indicators used refer to White (2019), namely confidence in finances and confidence in money management, and are supported by indicators according to Lown (2022), such as the ability to manage expenses, achieve financial targets, overcome financial problems, and confidence in future financial conditions. In this study, the study seeks to examine whether there is an influence between independent variables and dependent variables. The independent variables studied were *Financial Literacy*, *Financial Technology*, and *Financial Attitude*, while the dependent variables studied were Financial Management Behavior and the moderation variable *Financial Self-Efficacy*. Therefore, from the presentation of this research, it can be seen in Figure 1.

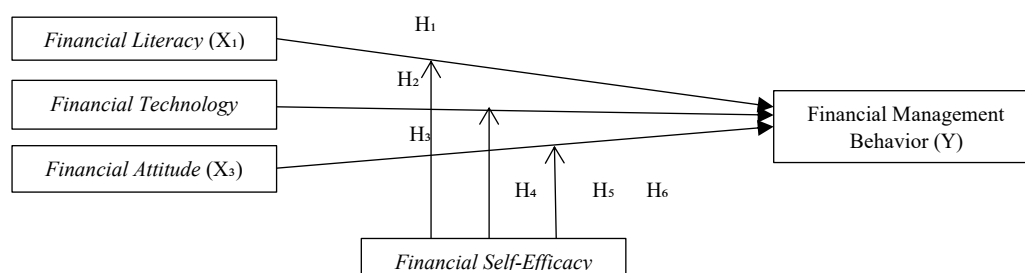


Figure 1. Conceptual Framework

Source: Authors' elaboration based on the literature

The Effect of Financial Literacy on Financial Management Behavior

Financial literacy refers to an individual's ability to understand financial concepts, evaluate financial risks, and make appropriate financial decisions. Behavioral Finance Theory argues that financial knowledge provides individuals with the cognitive capability for managing financial resources. Accordingly, financially literate individuals should demonstrate more responsible financial management behavior. Nevertheless, previous empirical evidence remains inconclusive. Several studies reported that financial literacy significantly improves financial management behavior because knowledgeable individuals are more capable of budgeting, saving, and managing cash flow effectively (Lusardi & Messy, 2023; Fatmawati et al., 2023). Conversely, Bongomin et al. (2022) found that financial literacy alone is insufficient to influence behavior because knowledge does not always translate into action. Such inconsistency suggests the existence of a knowledge–behavior gap, where individuals understand financial concepts but fail to implement them consistently. This inconsistency indicates that financial literacy may require additional psychological mechanisms before influencing financial behavior. Therefore, further investigation remains necessary, particularly among MSMEs operating in semi-rural areas where financial capability and business characteristics differ from those in urban settings.

H1: Financial Literacy affects Financial Management Behavior

The Influence of Financial Technology on Financial Management Behavior

Financial technology enables MSMEs to conduct digital transactions, monitor cash flow, access financing, and manage financial records more efficiently. According to TAM, the adoption of useful and user-friendly technologies should improve financial management performance. However, empirical findings remain contradictory. Some studies demonstrate that fintech adoption significantly enhances financial management behavior because digital financial services simplify financial decision-making (Lestari et al., 2024). Conversely, other researchers argue that MSMEs frequently use fintech merely for payment transactions rather than strategic financial management, resulting in insignificant behavioral improvements (Hasan et al., 2023). These conflicting findings imply that technology adoption alone may not sufficiently improve financial behavior. The effectiveness of financial technology may depend upon users' confidence, digital literacy, and readiness to integrate technology into business management practices.

H2: Financial Technology has an effect on Financial Management Behavior

The Influence of Financial Attitudes on Financial Management Behavior

Financial attitudes reflect an individual's beliefs, values, and evaluations regarding money management. Behavioral Finance theory suggests that attitudes influence financial behavior because individuals who value wise financial management are more likely to engage in budgeting, saving, and controlling expenses (Thaler, 2016). Empirical evidence generally supports this idea. Some studies have found that financial attitudes significantly improve financial management behavior among SMEs and individual consumers because positive financial attitudes encourage disciplined financial decision-making (Farrell et al., 2022; Widjayanti et al., 2025). However, other research reports insignificant relationships, indicating that positive attitudes alone may not always translate into actual financial behavior when individuals face resource constraints, limited income, or environmental barriers (Bongomin et al., 2022; Hasan et al., 2023). These inconsistent findings suggest that the relationship between financial attitudes and financial management behavior still can't be concluded. Furthermore, evidence from semi-rural SMEs is still limited, even though they have different socio-economic characteristics and technological readiness. Therefore, further research is needed to determine whether financial attitudes significantly influence financial management behavior among SMEs in Pasirian District.

H3: Financial Attitude affects Financial Management Behavior

Financial Self-Efficacy Moderates the Influence of Financial Literacy on Financial Management Behavior

According to Social Cognitive Theory (Bandura, 1986), behavior is influenced not only by knowledge but also by individuals' confidence in applying that knowledge. In the context of financial management, financial self-efficacy enables MSME owners to transform financial literacy into actual financial behavior by increasing their confidence in making financial decisions. Therefore, MSME owners with higher financial self-efficacy are expected to apply their financial knowledge more consistently in budgeting, cash-flow management, and financial planning. Previous studies

generally support this relationship. Farrell et al. (2022) found that individuals with higher financial self-efficacy demonstrate better financial behavior because confidence facilitates the application of financial knowledge, while Prasad et al. (2024) identified self-efficacy as a mechanism that bridges financial knowledge and financial decision-making. However, Bongomin et al. (2022) suggested that the moderating role of self-efficacy may vary across different socioeconomic contexts. Moreover, empirical evidence remains limited among MSMEs in semi-rural areas, where differences in business characteristics, financial capability, and access to financial services may influence this relationship. Based on Social Cognitive Theory and the existing empirical inconsistencies, this study argues that financial self-efficacy strengthens the positive relationship between financial literacy and financial management behavior by increasing MSME owners' confidence in applying their financial knowledge effectively.

H4: Financial Self-Efficacy can moderate the influence of Financial Literacy on Financial Management Behavior

Financial Self-Efficacy Moderates the Influence of Financial Technology on Financial Management Behavior

The Technology Acceptance Model (Davis, 1989) explains that technology adoption is influenced by perceived usefulness and perceived ease of use, whereas Social Cognitive Theory (Bandura, 1986) emphasizes that individuals' confidence determines whether technology can be effectively utilized. Accordingly, financial self-efficacy is expected to strengthen the relationship between financial technology and financial management behavior because MSME owners with higher confidence are more likely to utilize financial technology not only for transactions but also for budgeting, financial planning, and cash-flow management. Previous studies have reported inconsistent findings. Prasad et al. (2024) found that financial self-efficacy enhances the effective use of financial technology, thereby improving financial behavior. In contrast, Hasan et al. (2023) argued that financial technology adoption does not necessarily improve financial management because many MSMEs still face limited digital capability and technological readiness. These inconsistent findings indicate that the moderating role of financial self-efficacy remains inconclusive, particularly among MSMEs in semi-rural areas where empirical evidence is still limited. Based on the integration of the Technology Acceptance Model and Social Cognitive Theory, this study argues that financial self-efficacy enables MSME owners to maximize the strategic use of financial technology, thereby strengthening its positive influence on financial management behavior.

H5: Financial Self-Efficacy can moderate the influence of Financial Technology on Financial Management Behavior

Financial Self-Efficacy Moderates the Influence of Financial Attitude on Financial Management Behavior

Behavioral Finance Theory explains that financial attitude reflects an individual's beliefs and values toward financial management, while Social Cognitive Theory (Bandura, 1986) emphasizes that behavior is influenced not only by attitudes but also by confidence in performing specific actions. Therefore, financial self-efficacy is expected to strengthen the relationship between financial attitude and financial management behavior because individuals with positive financial attitudes and strong self-confidence are more likely to consistently implement prudent financial practices. Previous studies have consistently shown that financial attitude positively influences financial management behavior (Farrell et al., 2022; Widjayanti et al., 2025), while Prasad et al. (2024) found that financial self-efficacy enhances behavioral consistency by encouraging individuals to apply positive financial practices more confidently. However, empirical evidence regarding the moderating role of financial self-efficacy remains limited, particularly among MSMEs in semi-rural areas where business characteristics, financial capability, and technological readiness differ from those in urban settings. Based on Behavioral Finance Theory and Social Cognitive Theory, this study argues that financial self-efficacy strengthens the positive influence of financial attitude on financial management behavior by increasing MSME owners' confidence to implement sound financial decisions consistently.

H6: Financial Self-Efficacy can moderate the influence of Financial Attitude on Financial Management Behavior

METHODS

This study employed a quantitative explanatory research design to examine the relationships among financial literacy, financial technology, financial attitude, financial self-efficacy, and financial management behavior of Micro, Small, and Medium Enterprises (MSMEs). A quantitative approach was considered appropriate for testing hypotheses developed based on Behavioral Finance Theory, Social Cognitive Theory, and the Technology Acceptance Model (Creswell & Creswell, 2018). Data were collected using a structured questionnaire measured on a five-point Likert scale. The population consisted of 500 MSME owners in Pasirian District, Lumajang Regency. Based on the Slovin formula with a 10% margin of error, a sample of 83 respondents was selected using purposive sampling. This sampling technique was employed because only MSME owners who met the research criteria were able to provide relevant information. The respondents were required to: (1) own or manage an MSME, (2) have operated the business for at least one year, and (3) have experience using either conventional or digital financial services (Sekaran & Bougie, 2020). The study examined five latent constructs, namely financial literacy, financial technology, financial attitude, financial self-efficacy, and financial management behavior. The measurement items were adapted from previously validated studies and assessed using a five-point Likert scale. Instrument quality was evaluated through convergent validity using factor loadings (> 0.70) and Average Variance Extracted (AVE > 0.50), discriminant validity using the Fornell–Larcker criterion, and reliability using Cronbach's Alpha and Composite Reliability, with values above 0.70 indicating satisfactory internal consistency (Hair et al., 2022). Hypothesis testing was conducted using SmartPLS 4 with the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. PLS-SEM was selected because it is appropriate for analyzing complex relationships among latent variables, including moderating effects, with relatively small sample sizes and without requiring the assumption of multivariate normality (Hair et al., 2022). The analysis included the evaluation of the measurement model (outer model) and the structural model (inner model) through path coefficients, the coefficient of determination (R^2), effect size (f^2), and bootstrapping with a significance level of 5%.

RESULTS OF RESEARCH AND DISCUSSION

Research Results

a. Respondent Description

Table 1: Characteristics of Respondents

Yes	Description	Frequency	Percentage
1	Gender		
	Male – Male	37	44,58%
	Women	46	55,42%
2	Age		
	≤ 25 Years	20	24,09%
	26 – 30 Years	25	30,12%
	31 – 36 Years Old	22	26,51%
	37 – 41 Years	12	14,46%
	≥ 50 Years	4	4,82%
3	Revenue		
	IDR 500,000 – IDR 1,000,000	39	46,99%
	IDR 1,100,000 – IDR 2,000,000	29	34,94%
	IDR 2,100,000 – IDR 3,000,000	8	9,64%
	IDR 3,100,000 – IDR 4,000,000	7	8,43%

Source: Questionnaire Filling Results, 2026

Based on Table 1, of the 83 respondents of MSME actors in Pasirian District, the majority were in the age range of 26-30 years as many as 25 people (30.12%), followed by 22 people (26.51%), 20 people ≤25 years old (24.09%), 37-41 years old as many as 12 people (14.46%), and ≥50 years old as many as 4 people (4.82%). This shows that most of the respondents are at a productive age and

have a high enthusiasm for running and developing a business. Based on gender, as many as 46 people (55.42%) are women and 37 people (44.58%) are men, which shows that women have a dominant role in MSME activities, both as business owners and managers. Meanwhile, based on income, the majority of respondents, namely 39 people (46.99%), have an income of IDR 500,000–IDR 1,000,000, followed by 29 people (34.94%) with an income of IDR 1,100,000–IDR 2,000,000, 8 people (9.64%) with an income of IDR 2,100,000–IDR 3,000,000, and 7 people (8.43%) IDR 3,100,000–IDR 4,000,000. This data shows that most MSME actors are still on a small business scale with low to medium income levels, so they still have great opportunities for future business development.

b. Outer Model

Convergent Validity

The reflective indicator is high if the size is correlated more than 0.60, while the loading factor value between 0.5 and 0.6 is still within a sufficient limit. The results of the validity test are shown in Figure 2 as follows (Hair et al, 2019)

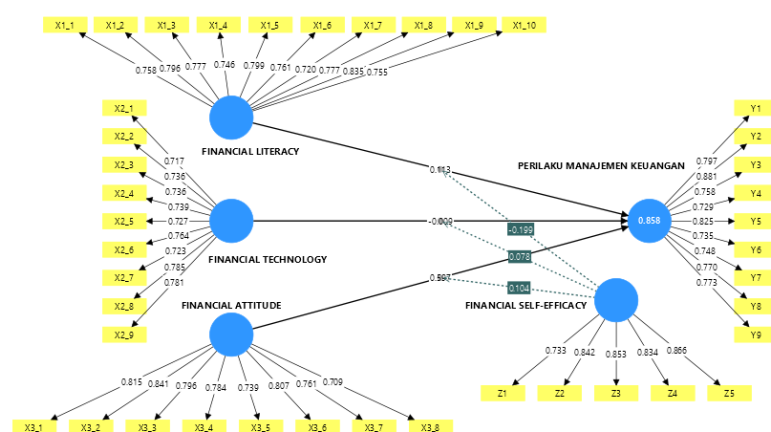


Figure 2. Results of the Structural Model Analysis

Source: Research Data, Processed 2026

Based on Figure 2, all indicators in the variables Financial Literacy (X1), Financial Technology (X2), Financial Attitude (X3), Financial Management Behavior (Y), and Financial Self-Efficacy (Z) have a loading factor value above 0.70 and a p-value of 0.000, which indicates a high level of significance. Thus, all indicators were declared valid because they met the criteria of convergent validity and were suitable for use in subsequent analyses. Furthermore, convergent validity analysis by reviewing the Average Variance Extracted (AVE) value as presented in Table 2.

Table 2. Average Variance Extracted (AVE) Value

Variable	AVE	Remarks
Financial Literacy (X ₁)	0,612	Valid
Financial Technology (X ₂)	0,597	Valid
Financial Attitude (X ₃)	0,684	Valid
Financial Management Behavior (Y)	0,556	Valid
Financial Self-Efficacy (Z)	0,610	Valid

Source: Data Processing Results 2026

Based on Table 2, the test results show that all variables have an Average Variance Extracted (AVE) value above 0.50 (Financial Literacy 0.612; Financial Technology 0.597; Financial Attitude 0.684; Financial Management Behavior 0.556; and Financial Self-Efficacy 0.610), so that it is declared to meet the criteria of convergent validity and is able to adequately explain latent constructs.

Discriminant Validity

Discriminant validity is declared adequate if each indicator has the highest loading value on the latent variable it measures compared to other latent variables.

Table 3. Discriminant Validity Based on Fornell-Larcker Criterion

Variable	Financial Attitude	Financial Literacy	Financial Self-Efficacy	Financial Technology	Financial Management Behavior
Financial Attitude	0,783				
Financial Literacy	0,801	0,773			
Financial Self-Efficacy	0,665	0,654	0,827		
Financial Technology	0,687	0,681	0,677	0,746	
Financial Management Behavior	0,893	0,810	0,737	0,660	0,781

Source: Data Processing Results 2026

Based on the results of the discriminant validity test using the Fornell-Larcker Criterion method, all variables had a higher square root value of AVE than the correlation between other variables (Financial Attitude 0.783; Financial Literacy 0.773; Financial Self-Efficacy 0.827; Financial Technology 0.746; and Financial Management Behavior 0.781). This shows that each construct is able to better explain its own indicators and has met the criteria of discriminant validity, making it worthy of use in further analysis.

Composite Reliability

Composite Reliability can be measured by Cronbach's Alpha value. If the reliability value is < 0.50 is considered low, a reliability value between 0.50 and 0.60 is considered sufficient, and a value above 0.70 is considered a high reliability value. The following is a table of (Sihombing, 2024) Cronbach's Alpha values.

Table 4. Composite Reliability and Cronbach's Alpha

Variable	Composite Reliability	Cronbach's Alpha	Remarks
Financial Literacy	0,937	0,925	Reliable
Financial Technology	0,918	0,901	Reliable
Financial Attitude	0,926	0,909	Reliable
Financial Management Behavior	0,933	0,919	Reliable
Financial Self-Efficacy	0,915	0,885	Reliable

Source: Data Processing Results 2026

The results of the reliability test in Table 4 show that all variables have a Composite Reliability value and Cronbach's Alpha above 0.70, so it can be declared to have good internal consistency and reliability. Overall, the variables Financial Literacy, Financial Technology, Financial Attitude, Financial Management Behavior, and Financial Self-Efficacy showed a high level of reliability, making the research instrument feasible and trustworthy for further analysis.

c. Inner Model

R-Square Value

The R-Square value is the determination coefficient to measure the influence of independent variables on dependent constructs in the model. The R-squared value is categorized as 3 influences if it shows a value of around 0.67, meaning a strong influence, 0.33 for a moderate influence, and 0.19 for a weak influence. The following is a table of R-square values (Sihombing, 2024) processed using SmartPLS.

Table 5. R-Square Test Results (R²)

Variable	Adjusted R-Square	Remarks
Financial Management Behavior	0,845	Strong (Substantial) Relationships

Source: Data Processing Results 2026

Based on Table 5, the Adjusted R-Square value of 0.845 indicates that 84.5% of the variation in Financial Management Behavior can be explained by the model, while 15.5% is influenced by other factors outside the model. This value belongs to a strong category (substantial), so the model has a very good ability to explain the phenomenon being studied.

Goodness Of Fit (GOF) Value

Goodness of Fit (GoF) indicates the overall level of model accuracy with values ranging from 0 to 1, where getting closer to 1 indicates a better fit of the model. Based on, GoF is calculated using the SRMR value, with the model fit criteria if $SRMR < 0.10$ and a perfect fit if $SRMR < 0.08$ (. The following is a table of Ghazali (2016) Ghazali & Latan, 2020: 75) Goodness Of Fit (GOF) values, namely.

Table 6. Goodness Of Fit (GOF) Value

	Saturated Model	Estimated Model	Remarks
SRMR	0,092	0,092	Fit

Source: Data Processing Results 2026

Based on Table 6, the SRMR value in the Saturated Model and Estimated Model of 0.092 indicates that both models have the same level of suitability and are included in the acceptable fit category. This means that the model is sufficiently capable of representing empirical data, even though it has not yet reached an optimal level of fit (good fit).

F-Square Value

F-Square (f^2) in PLS-SEM analysis is used to measure the magnitude of the influence of exogenous constructs on endogenous constructs based on changes in the value of R^2 when a construct is removed. According to the f^2 value, 0.02 indicates a small, 0.15 medium, and 0.35 large influence. Hair et al. (2019)

Table 7. F-Square Values

Variable	F-Square	Remarks
Financial Literacy→Financial Management Behavior	0,022	Small
Financial Technology→Financial Management Behavior	0,000	Has no effect
Financial Attitude→Financial Management Behavior	0,538	Large
Financial Self-Efficacy × Financial Literacy→Financial Management Behavior	0,052	Small
Financial Self-Efficacy × Financial Technology→Financial Management Behavior	0,023	Small
Financial Self-Efficacy × Financial Attitude→Financial Management Behavior	0,015	Small

Source: Data Processing Results 2026

Based on the results of the f-square (f^2) test, the financial literacy variable had a small influence (0.022), financial technology had no effect (0.000), while financial attitude had a large influence (0.538) on financial management behavior. In the moderation variable, the interaction of financial self-efficacy with financial literacy (0.052) and financial technology (0.023) showed a small influence, while the interaction with financial attitude (0.015) did not show a significant moderation effect. Overall, financial attitude is the most dominant variable in influencing financial management behavior, while other variables only have a small or insignificant influence.

Hypothesis Test

Hypothesis testing in the PLS-SEM model was carried out using *the bootstrapping* technique to produce a distribution of parameter estimation, using t-statistic values and p-values as the basis for determining significance. According to the stated effect, if the significance value at $\alpha = 0.05$ and the t-value > 1.96 or the p-value < 0.05 . The results of hypothesis testing, which play a role in strengthening or weakening the relationships between variables, can be seen in the following table: Hair et.al. (2019).

Table 8. Hypothesis Test Values

Variable	T statistics (O/STDE V)	P-values	Remarks
Financial Literacy→Financial Management Behavior	1,268	0,102	Insignificant
Financial Technology→Financial Management Behavior	0,105	0,458	Insignificant
Financial Attitude→Financial Management Behavior	6,381	0,000	Significant
Financial Self-Efficacy × Financial Literacy→Financial Management Behavior	2,149	0,016	Significant
Financial Self-Efficacy × Financial Technology→Financial Management Behavior	0,994	0,160	Insignificant
Financial Self-Efficacy × Financial Attitude→Financial Management Behavior	1,116	0,132	Insignificant

Source: Data Processing Results 2026

Based on the previous table, the results of the hypothesis test show the direct influence of independent variables on dependent variables and the role of moderation variables in strengthening or weakening these relationships.

1. The Financial Literacy variable had no significant effect on Financial Management Behavior with a p-value of 0.102 (> 0.05), so hypothesis 1 was rejected.
2. The Financial Technology variable had no significant effect on Financial Management Behavior with a p-value of 0.458 (> 0.05), so hypothesis 2 was rejected.
3. The Financial Attitude variable has a significant effect on Financial Management Behavior with a p-value of 0.000 (< 0.05), so hypothesis 3 is accepted.
4. The Financial Self-Efficacy variable was able to moderate (strengthen) the influence of Financial Literacy on Financial Management Behavior with a p-value of 0.016 (< 0.05), so that hypothesis 4 was accepted.
5. The Financial Self-Efficacy variable was not able to moderate the influence of Financial Technology on Financial Management Behavior with a p-value of 0.160 (> 0.05), so hypothesis 5 was rejected.
6. The Financial Self-Efficacy variable does not play a role as a moderation variable in the relationship between Financial Attitude to Financial Management Behavior, with a p-value of 0.132 (> 0.05), so hypothesis 6 is rejected.

The Effect of Financial Literacy on Financial Management Behavior in MSMEs in Pasirian District

The results indicate that financial literacy does not significantly influence financial management behavior among MSMEs in Pasirian District. This finding suggests that possessing financial knowledge alone is insufficient to encourage MSME owners to implement sound financial management practices. Although respondents may understand basic financial concepts, such knowledge is not consistently translated into budgeting, cash-flow management, or long-term financial planning. This phenomenon reflects the knowledge-behavior gap, where financial knowledge exists but fails to become actual financial behavior. One possible explanation lies in the characteristics of MSMEs in Pasirian District. Most businesses are micro-scale and family-managed enterprises that rely heavily on practical experience rather than formal financial management. Business decisions are often based on intuition, habitual practices, and immediate operational needs instead of systematic financial analysis. Consequently, financial literacy functions as a source of knowledge but does not automatically determine financial behavior.

These findings support Bongomin et al. (2022), who argued that financial literacy alone has a limited influence on financial behavior unless supported by psychological factors. However, the results contradict Fatmawati (2023) and Humaira (2018), who reported a significant positive relationship between financial literacy and financial management behavior. Such inconsistencies indicate that the effectiveness of financial literacy is highly context-dependent and influenced by socioeconomic conditions, business characteristics, and individual psychological readiness. From a theoretical

perspective, these findings extend Behavioral Finance Theory by demonstrating that financial literacy should not be viewed as a direct determinant of financial management behavior. Instead, financial literacy represents a necessary but insufficient condition, whose effectiveness depends on complementary psychological factors such as financial self-efficacy. This finding reinforces the argument that improving MSME financial behavior requires not only financial education but also interventions that strengthen individuals' confidence in applying financial knowledge.

The Influence of Financial Technology on Financial Management Behavior in MSMEs in Pasirian District

The findings reveal that financial technology does not significantly influence financial management behavior among MSMEs in Pasirian District. This indicates that the adoption of digital financial services does not necessarily improve financial management practices. Although many MSME owners utilize digital payment applications or mobile banking, these technologies are primarily used to facilitate business transactions rather than to support strategic financial activities such as budgeting, financial planning, financial reporting, or cash-flow monitoring. Accordingly, the results demonstrate the existence of a utilization gap, where technology adoption has not been followed by meaningful changes in financial management behavior. The insignificant relationship may be explained by the local context of the Pasirian District. As a semi-rural area, MSMEs generally exhibit limited digital literacy, relatively low technological capability, and restricted access to financial training. Furthermore, most businesses are family-owned enterprises with simple financial management systems and limited awareness of the strategic functions offered by financial technology. Consequently, technology is perceived mainly as a transactional tool rather than a decision-support system.

These findings are consistent with Luckandi (2019) and Hasan et al. (2023), who concluded that financial technology adoption among MSMEs is frequently limited to operational activities. However, the findings differ from Lestari (2024), who reported that financial technology significantly improves financial management behavior. This inconsistency suggests that the effectiveness of financial technology depends not only on technology availability but also on users' digital readiness, financial capability, and business environment. The findings also contribute theoretically by extending the Technology Acceptance Model (TAM). While TAM emphasizes perceived usefulness and ease of use as determinants of technology adoption, the present study indicates that these factors alone are insufficient to explain financial management behavior among semi-rural MSMEs. Instead, contextual factors such as digital literacy, infrastructure, and organizational readiness should be incorporated to better explain how technology adoption translates into effective financial behavior. Therefore, technology-based policies should be accompanied by financial education and digital capacity-building programs to maximize the benefits of financial technology for MSMEs.

The Influence of Financial Attitude on Financial Management Behavior in MSMEs in Pasirian District

The results demonstrate that financial attitude has a positive and significant effect on financial management behavior, making it the strongest predictor in the research model. This finding indicates that psychological factors play a more dominant role than cognitive knowledge or technology adoption in shaping financial behavior among MSMEs. MSME owners who possess positive financial attitudes tend to prioritize budgeting, expenditure control, financial planning, and disciplined financial decision-making, regardless of their level of financial literacy. This finding can be explained by the characteristics of MSMEs in Pasirian District, where financial decisions are often driven by personal values, experience, and habitual business practices rather than formal financial knowledge. In family-managed businesses, financial attitudes are developed through long-term business experience and become an internal guideline for managing financial resources. Consequently, positive financial attitudes directly encourage responsible financial management behavior without necessarily requiring high financial literacy or sophisticated financial technology.

The findings support Firmansyah et al. (2022) and Amerika et al. (2026), who identified financial attitude as a significant predictor of financial behavior. However, the present study demonstrates a stronger influence of financial attitude than financial literacy, suggesting that psychological

readiness may be more important than cognitive capability in the context of semi-rural MSMEs. From a theoretical perspective, these findings extend the Theory of Planned Behavior (Ajzen, 1991) by indicating that financial attitude influences financial management behavior not only indirectly through behavioral intention but also directly through habitual financial decision-making. This suggests that in semi-rural MSMEs, repeated financial practices have transformed positive attitudes into stable behavioral patterns. Therefore, financial education programs should focus not only on improving financial knowledge but also on cultivating positive financial attitudes and responsible financial habits among MSME owners.

The Role of Financial Self-Efficacy Moderates the Relationship Between Financial Literacy and Financial Management Behavior in MSMEs in Pasirian District

The findings reveal that financial self-efficacy significantly moderates the relationship between financial literacy and financial management behavior. This result indicates that financial knowledge alone is insufficient to improve financial behavior unless MSME owners possess confidence in applying such knowledge. Financial self-efficacy, therefore, functions as a psychological mechanism that transforms financial knowledge into practical financial actions. In the context of Pasirian District, many MSME owners acquire financial knowledge through business experience or financial education programs, but remain reluctant to implement budgeting, investment planning, or financial evaluation because of limited confidence in their financial capabilities. Individuals with stronger financial self-efficacy are more willing to utilize their financial knowledge, make informed financial decisions, and manage business finances consistently under uncertain business conditions.

These findings are consistent with Farida et al. (2022) and Gautama (2025), who reported that financial self-efficacy strengthens the influence of financial literacy on financial behavior. However, this study contributes further by demonstrating that financial self-efficacy bridges the knowledge behavior gap specifically within semi-rural MSMEs, where limited financial experience and business uncertainty often reduce the practical application of financial knowledge. The findings reinforce Social Cognitive Theory (Bandura, 1986), which emphasizes that behavior is determined not only by knowledge but also by individuals' confidence in performing specific actions. Consequently, improving MSME financial behavior requires integrating financial literacy programs with interventions designed to strengthen financial self-efficacy through mentoring, financial coaching, and practical business training.

The Role of Financial Self-Efficacy Moderates the Relationship Between Financial Technology and Financial Management Behavior in MSMEs in Pasirian District

The results indicate that financial self-efficacy does not significantly moderate the relationship between financial technology and financial management behavior. This finding suggests that confidence alone is insufficient to increase the effectiveness of financial technology in improving financial management practices. Even MSME owners with high financial self-efficacy tend to utilize financial technology primarily for operational transactions rather than strategic financial management. This result may be explained by the characteristics of MSMEs in Pasirian District, where digital financial services are generally adopted because they facilitate payment transactions instead of supporting budgeting, financial analysis, or business planning. Limited digital literacy, inadequate technological infrastructure, and restricted access to advanced financial applications reduce the strategic utilization of financial technology. Consequently, financial self-efficacy cannot compensate for structural constraints that limit technology utilization.

The findings support Putra (2023) and Sari and Dewi (2024), who concluded that financial self-efficacy does not necessarily enhance the effectiveness of financial technology adoption. However, they differ from Rahmawati et al. (2024), who reported a significant moderating effect. These contrasting findings indicate that the role of financial self-efficacy depends on contextual factors such as digital readiness, infrastructure, and organizational capability. From a theoretical perspective, the findings complement the Unified Theory of Acceptance and Use of Technology (UTAUT) by demonstrating that facilitating conditions and technological readiness may exert stronger influences than individual psychological factors. Therefore, technology-based financial inclusion policies should prioritize improving digital infrastructure and users' technological capability rather than relying solely on individual confidence.

The Role of Financial Self-Efficacy Moderates the Relationship Between Financial Attitude and Financial Management Behavior in MSMEs in Pasirian District

The findings show that financial self-efficacy does not significantly moderate the relationship between financial attitude and financial management behavior. This indicates that financial attitude exerts a sufficiently strong direct influence on financial behavior, making additional psychological reinforcement through financial self-efficacy unnecessary. Within the context of the Pasirian District, MSME owners with positive financial attitudes generally demonstrate disciplined financial practices regardless of differences in self-confidence. Financial attitudes have become internalized through business experience and daily financial routines, enabling individuals to manage business finances consistently without requiring additional motivational support.

These findings are consistent with Nurhayati and Nesner (2025), although they contradict Ikbal et al. (2025), who reported a significant moderating effect. Such inconsistencies suggest that the moderating role of financial self-efficacy is influenced by contextual characteristics, particularly the maturity of financial attitudes and the business environment. The findings extend Behavioral Finance Theory by indicating that when financial attitudes are already well established, they become dominant determinants of financial management behavior. Consequently, the additional contribution of financial self-efficacy becomes limited because financial attitudes alone are sufficient to guide consistent financial decision-making. This finding implies that strengthening positive financial attitudes may provide greater benefits than focusing solely on increasing individual confidence among MSMEs.

CONCLUSION

This study examined the effects of financial literacy, financial technology, and financial attitude on the financial management behavior of MSMEs in Pasirian District, with financial self-efficacy as a moderating variable. The results show that financial attitude is the only variable with a significant direct effect on financial management behavior, whereas financial literacy and financial technology have no significant direct effects. Financial self-efficacy significantly strengthens the relationship between financial literacy and financial management behavior, but does not moderate the relationships involving financial technology or financial attitude. These findings indicate that psychological factors, particularly financial attitude and financial self-efficacy, play a more important role than financial knowledge and technology adoption in shaping MSME financial behavior. Theoretically, this study contributes to the *Behavioral Finance* literature by demonstrating that financial literacy influences financial management behavior only when supported by financial self-efficacy. It also extends the *Technology Acceptance Model* by showing that financial technology adoption alone is insufficient to improve financial management behavior, particularly among MSMEs with limited digital readiness. Accordingly, this study integrates *Behavioral Finance Theory*, *Social Cognitive Theory*, and the technology adoption perspective into a more comprehensive framework for explaining MSME financial behavior.

Practically, the findings suggest that MSME development programs should combine financial literacy education with coaching, mentoring, and initiatives that strengthen financial self-efficacy. MSME owners are also encouraged to cultivate positive financial attitudes through disciplined budgeting, financial planning, and regular financial evaluation. Furthermore, financial education should emphasize experiential learning and practical simulations, while digital financial inclusion initiatives should be supported by digital literacy training to promote the effective and strategic use of financial technology. This study is limited by its focus on MSMEs in Pasirian District, a relatively small sample size, and a cross-sectional research design, which may limit the generalizability of the findings and the ability to capture behavioral changes over time. In addition, several potentially influential factors, including financial inclusion, entrepreneurial orientation, business experience, and organizational capability, were not incorporated into the research model. Future research should involve larger and more diverse MSME samples across different regions and sectors, adopt longitudinal research designs, and incorporate contextual variables such as digital readiness, financial inclusion, entrepreneurial resilience, organizational learning, and institutional support to provide a more comprehensive understanding of MSME financial management behavior.

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