# The Influence of Financial Literacy and Financial Planning on the Financial Behavior of MSMEs in Candi District, Sidoarjo

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**Abstract.** This study aims to analyze the influence of financial literacy and financial planning on the financial behavior of MSMEs (Micro, Small, and Medium Enterprises) in Candi District, Sidoarjo Regency. Given the significant contribution of MSMEs to the Indonesian economy, the ability of MSMEs to manage finances well is crucial for business sustainability. This study uses a quantitative method with an explanatory approach, involving a number of MSMEs. Data collection was carried out using questionnaires and observations, and analysis using multiple linear regression using IBM SPSS 24. The results of the study indicate that financial literacy and financial planning partially and significantly have a positive effect on financial behavior. This means that the higher the level of financial literacy and structured financial planning, the better the financial behavior of MSMEs, including in cash flow management and financial decision making. The results of this study indicate the importance of increasing MSME actors' understanding of financial management to improve business performance and sustainability.

**Keywords:** financial literacy, financial planning, financial behavior, UMKM, Sidoarjo

## Introduction

In Indonesia, the contribution of MSMEs or "Micro, Small, and Medium Enterprises" has a very essential role by making a major contribution to the economy. The MSME sector not only influences national income but also has a positive impact in opening up wide employment opportunities (Yerianto & Mustaqim, 2024). Based on data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia, it shows that MSMEs absorb up to 89.2% of the total workforce, provide up to 99% of total employment, contribute 60.34% of the total national GDP, contribute 14.17% of total exports, and contribute 58.18% of (KOMPAS.com). This shows that MSMEs are one of the backbones in building the country's economy, both developing and developed countries. Indonesia is one of the developing countries, where the economy in Indonesia is dominated by the MSME sector (Irwan, Icih, & Kurniawan, 2020). In 2019, Sidoarjo had the largest number of MSMEs in East Java (Zaki et al., 2023). According to the Cooperatives and MSMEs Service of Sidoarjo Regency, the number of MSME managers until 2024 was 150,724 operating in various sectors and spread across 18 sub-districts. Various MSME business sectors in Sidoarjo Regency include the food and beverage sector, handicrafts, services, craftsmen, fashion, basic necessities, agribusiness, internet technology and others (Putri, 2024).

Table 1 List of the number of MSMEs in Candi District

| Kecamatan | Jumlah Usah Mikro |
| --- | --- |
| Tarik | 3.786 |
| Prambon | 4.233 |
| Krembung | 10.305 |
| Porong | 6.390 |
| Jabon | 4.823 |
| Tanggulangin | 11.623 |
| Candi | 10.225 |
| Tulangan | 8.742 |
| Wonoayu | 4.880 |
| Sukodono | 5.407 |
| Sidoarjo | 21.460 |
| Buduran | 5.361 |
| Sedati | 6.593 |
| Waru | 10.046 |
| Gedangan | 7.911 |
| Taman | 8.655 |
| Krian | 12.988 |
| Balongbendo | 7.294 |
| Kabupaten Sidoarjo | 150.724 |

Based on the table data above, Candi District has a fairly large number of micro businesses. Of the many MSME actors in Candi District, it is possible that they are still unable to manage their finances properly, which can affect the success of their business. This situation hinders business development because the recording of incoming and outgoing cash flows is not properly organized, making it difficult to carry out accurate financial evaluations and planning. Behavior in managing finances is often a problem that is ignored by MSME actors, especially in terms of implementing the principles of proper and correct financial management. According to (Triani & Wahdiniwaty, 2020), Financial Literacy is a measure of the extent to which a person is able to plan finances and make the right decisions regarding finances, both for short-term and long-term needs. There is no separation of finances between business money and daily living expenses. This phenomenon always occurs because MSME business actors consider their business to be still relatively small and a family business. Previous research on financial knowledge and financial behavior, namely (Afdilla et al., 2020) confirmed that financial knowledge has a positive impact on individuals in managing finances. Further research by Desyana Putri et al. (2022) confirmed that financial literacy and financial inclusion significantly improve the financial performance of MSMEs in Indonesia. In addition, Safitri et al. (2023) in Padang found that financial attitudes, rather than literacy alone, have a greater influence on financial management behavior in MSME actors. These findings indicate that increasing financial literacy must be accompanied by changes in financial attitudes in order to create better and more sustainable financial management.

The financial behavior of MSMEs can also be influenced by financial planning strategies. According to (Yerianto & Mustaqim, 2024), financial planning is defined as a way to achieve financial goals, both short-term and long-term in a person's life. This process involves planning for various financial aspects such as income, savings, investments, children's education costs, retirement preparation, and security in old age. MSME actors are expected to have a good understanding of financial planning. With mature financial planning, they can manage and optimize financial aspects more efficiently. Financial planning can be done by recording expenses and income regularly, allowing MSME actors to utilize business funds optimally and avoid the risk of unexpected financial difficulties. Previous research conducted by (Susanti et al., 2018) showed that financial planning has a positive and significant contribution to the financial behavior of MSMEs. Quantitative research involving 100 MSMEs in Indonesia by (Wahyudi et al., 2022) found that MSMEs that implement structured and periodic financial planning show significant improvements in financial stability, operational efficiency, and the ability to face market challenges. These findings support the argument that financial planning

strategies not only have an impact on behavioral aspects but also have a real effect on the performance and resilience of MSMEs in facing dynamic economic situations.

As a theoretical basis, this study refers to the Grand Theory in the form of Financial Management Behavior Theory which has been developed and strengthened in various recent studies. This theory states that the financial behavior of individuals or business actors is influenced by internal factors such as financial literacy, financial planning, and financial attitudes (Setiyani & Solikhah, 2021; Dewi & Suryandari, 2023). Financial literacy acts as a basic foundation in understanding financial concepts, while financial planning acts as a strategic tool to achieve financial goals. Financial behavior is not only influenced by knowledge alone, but also by attitudes and habits in managing finances, such as recording transactions, budgeting, and making long-term financial decisions (Putra & Darma, 2022). By referring to this theory, it can be assumed that increasing financial literacy and planning will have a significant impact on the financial behavior of MSME actors.

This study focuses on MSMEs located in Candi District, Sidoarjo Regency. The purpose of this study is to assess and study the impact of financial literacy and financial planning on the financial behavior of MSMEs in the area. The results of this study are expected to provide useful information for business actors and related parties in the MSME sector, especially in Sidoarjo Regency.

## Methods

This study uses a quantitative method with an explanatory approach to analyze social phenomena and explain the relationship between financial literacy and financial planning on the financial behavior of MSMEs. The technique used in this study is Non-Probability Sampling, especially purposive sampling, which is the selection of samples based on certain criteria that are relevant to the objectives of the study. The criteria used are MSME actors who have been running a business for at least one year, have simple financial records, and are willing to fill out the research questionnaire. This technique is used so that the data obtained truly reflects the financial behavior of active business actors and has experience in managing daily business finances. Primary data were collected through questionnaires distributed to 62 MSME actors in Candi District, Sidoarjo, using a Likert scale of 1-5. In addition, observations were also conducted to understand the behavior of the subjects. Secondary data were obtained from journals and books. Researchers conducted a validity test to ensure that the research instrument was accurate and reliable. This study uses validity tests, reliability tests, and multiple linear regression analysis which includes normality tests, heteroscedasticity tests, multicollinearity tests, and t-tests. Data processing was carried out with the help of IBM SPSS software version 24." (Sugiono, 2021).

## Result and Discussion
## Result
## Statement Test
## Certainty Test

Table 2. Validity

| Variable | Statement items | R count | R table | Information |
|---|---|---|---|---|
| Financial Literacy ($X_1$) | X1.1 | 0,636 | 0.210 | Valid |
| | X1.2 | 0,746 | 0.210 | Valid |
| | X1.3 | 0,695 | 0.210 | Valid |
| | X1.4 | 0,739 | 0.210 | Valid |
| Financial Planning ($X_2$) | X2.1 | 0,514 | 0.210 | Valid |
| | X2.2 | 0,632 | 0.210 | Valid |
| | X2.3 | 0,779 | 0.210 | Valid |
| | X2.4 | 0,529 | 0.210 | Valid |
| | X2.5 | 0,825 | 0.210 | Valid |
| | X2.6 | 0,698 | 0.210 | Valid |
| | Y1 | 0,620 | 0.210 | Valid |
| | Y2 | 0,610 | 0.210 | Valid |

| | Y3 | 0,491 | 0.210 | Valid |
|---|---|---|---|---|
| Behavioral Finance (Y) | | | | |

<div align="center">Source: Primary Data Processed by SPSS (2025)</div>

Validity testing aims to assess whether an instrument actually measures what it should measure. For example, if someone uses a tool to measure height, but the questions asked actually make respondents give answers about length, then the instrument is considered invalid. The validity of a statement item can be determined by looking at the relationship between the item score and the total variable score, which is usually analyzed through a bivariate correlation test (Yerianto & Mustaqim, 2024). A statement item is said to be valid if the total item score is > r table, which is 0.210. So based on table 2, it can be concluded that all statement items are declared valid because each correlation value between the item score and the total score is > r table value (0.210).

**Reliability Test**

<div align="center">Table 3. Financial Literacy Reliability Test (X1)</div>

| Reliability Statistics | |
|---|---|
| Cronbach' Alpha | N of Items |
| .660 | 4 |

<div align="center">Source: Primary Data Processed by SPSS (2025)</div>

<div align="center">Table 4. Financial Planning Reliability Test (X2)</div>

| Reliability Statistics | |
|---|---|
| Cronbach' Alpha | N of Items |
| .749 | 6 |

<div align="center">Source: Primary Data Processed by SPSS (2025)</div>

<div align="center">Table 5. Financial Behavior Reliability Test (Y)</div>

| Reliability Statistics | |
|---|---|
| Cronbach' Alpha | N of Items |
| .739 | 6 |

<div align="center">Source: Primary Data Processed by SPSS (2025)</div>

Reliability testing aims to assess the extent to which respondents' responses to statements in the questionnaire are consistent. One method commonly used to test this consistency is Cronbach Alpha ($\alpha$). All statement items can be analyzed simultaneously to determine whether the instrument is reliable, namely if the Cronbach Alpha ($\alpha$) value exceeds 0.60. According to (Ghozali, 2021).

Based on table 2, Financial literacy (X1) shows that the Cronbach's Alpha value exceeds the limit of 0.60 (0.660 > 0.60). So the 4 financial literacy statements are said to be reliable. Based on table 3, Financial planning (X2) shows that the Cronbach's Alpha value exceeds the limit of 0.60 (0.749 > 0.60). So the 6 financial literacy statements are said to be reliable. Based on table 4, Financial behavior (Y) shows that the Cronbach's Alpha value exceeds the limit of 0.60 (0.739 > 0.60). So the 6 financial behavior statements are said to be reliable.

**Classical Assumption Test**
**Normality Test**

<div align="center">Table.6 Normality Test</div>

| One Sampel Kolomogorov-Smirnov Test | Unstandardized Residual | Information |
|---|---|---|
| Asymp. Sig (2-tailed) | 0,050 | Normally distributed |

<div align="center">Source: Primary Data Processed by SPSS (2025)</div>

The normality test has an important role and needs to be done before proceeding to other classical assumption tests. The purpose of this test is to ensure that the primary data has a normal distribution. One method that can be used is the Kolmogorov-Smirnov test. If the significance value obtained is greater than 0.05, then the data is considered to be normally distributed. If the significance

value obtained is greater than 0.05, then the data is considered to be normally distributed (Sujarweni & Utami, 2019).

Based on table 6, the results of the normality test using the One-Sample Kolmogorov-Smirnov Test method, the significance value (Asymp. Sig. 2-tailed) is 0.050. Because the significance value of 0.050 is the same as the significant threshold of 0.05, the data can be said to be marginally normally distributed. Thus, the data meets the normality assumption and can be used to continue to the next classical assumption test.
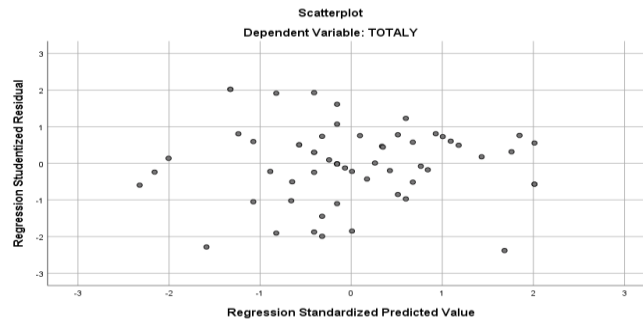
**Heteroscedasticity Test**



Figure. 1 Heteroscedasticity Test
Source: Primary Data Processed by SPSS (2025)

According to Sujarweni and Utami (2019), heteroscedasticity testing aims to determine whether there is a difference in residual variance in each observation period. Heteroscedasticity testing can be done using a scatterplot image. if it spreads above and below point 0 on the x and y axes, and does not form a certain pattern such as zigzag or stacked, then it can be concluded that there is no symptom of heteroscedasticity. If it spreads and forms a stacked or zigzag pattern, then there is a symptom of heteroscedasticity.

From the research results in Figure 1, it can be seen that the data is spread above and below point 0 on the x and y axes, and does not form a certain pattern such as zigzag or piled up, so it can be concluded that there is no symptom of heteroscedasticity.

**Multicollinearity Test**

Table 7. Multicollinearity Test

| Variable | Collinearity Statistics | | Information |
|---|---|---|---|
| | Tolerance | VIF | |
| Financial Literacy ($X_1$) | 0,656 | 1.524 | No Multicollinearity Occurs |
| Financial Planning ($X_2$) | 0,656 | 1.524 | No Multicollinearity Occurs |

Source: Primary Data Processed by SPSS (2025)

Multicollinearity test is conducted to determine whether there are similarities in characteristics between independent variables. When independent variables have high similarities, a strong relationship will emerge between them. This test also aims to prevent deviations in the decision-making process (Sujarweni & Utami, 2019).

As a basis for decision making for multicollinearity testing using tolerance and VIF values. tolerance value> 0.10 and VIF value <10. Based on table ( ) the results of the multicollinearity test in the Coefficients table, the Tolerance value for Financial Literacy (X1), Financial Planning (X2) is 0.656> 0.10. And for the VIF value of Financial Literacy (X1), Financial Planning (X2) is 1.524 <10. Because the tolerance value> 0.10 and the VIF value <10, it can be concluded that there is no multicollinearity between the independent variables in this regression model. This means that each independent variable does not have a strong linear relationship with each other, so it is worthy of use in further analysis.

**Hypothesis Test**

Hypothesis testing is a step to determine whether the assumption or prediction (hypothesis) in a study is statistically proven or not, based on the data that has been collected. In the context of quantitative research, hypothesis testing is carried out after the data passes the validity, reliability, and classical assumption tests. This test aims to see the influence or relationship between variables.

**T test**

Table 8. T-test

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 4.092 | 2.195 | | 1.865 | .067 |
| Financial Literacy (Total) | .378 | .150 | .251 | 2.513 | .015 |
| Financial Planning (Total) | .579 | .095 | .608 | 6.028 | .000 |
| a. Dependent Variable: Financial Behavior (Total) | | | | | |

Source: Primary Data Processed by SPSS (2025)

The t-test aims to measure the extent to which each independent variable individually influences the dependent variable.

a. The Influence of Financial Literacy on Financial Behavior
It is known that the SPSS output, the significance value of the influence of financial knowledge on financial behavior is 0.015> 0.05. While t count> t table (2.513> 1.670). It can be concluded that there is a partial influence between the Financial Literacy variable on Financial Behavior.

b. The Influence of Financial Planning on Financial Behavior
It is known that the SPSS output, the significance value of Financial Planning on financial behavior is 0.000 <0.05. While t count <t table (6.082> 1.670). It can be concluded that there is a partial influence between the Financial Planning variable on Financial Behavior.

**Discussion**

**The Influence of Financial Literacy on Financial Behavior**

The results of the hypothesis test show that the Financial Literacy variable has a significant value. This indicates that Financial Literacy has an influence on Financial Behavior in MSME actors in Candi District, Sidoarjo Regency. This means that the higher the level of financial literacy possessed by MSME actors, the better the financial behavior they show in managing their business. For example, MSMEs that understand the importance of cash flow tend to postpone the purchase of new equipment that is not urgent, and prefer to allocate funds for needs that support business stability. This reflects that MSME actors are beginning to realize the importance of understanding financial concepts, such as cash flow management, financial planning, and making the right financial decisions.

The results of this study support the findings of previous research conducted by (Anggi Mirdiyantika et al., 2023) which states that there is a positive influence on financial behavior.

**The Influence of Financial Planning on Financial Behavior**

The results of the hypothesis analysis show that the financial planning variable has a significant value. This indicates that financial planning has a significant influence on the financial behavior of MSME actors in Sidoarjo Regency. A concrete example of the implementation of financial planning in the field is when MSME actors routinely record expenses and income, prepare a monthly business budget, and separate operational funds from personal needs. With this habit, business actors can identify areas that need efficiency and allocate funds more strategically. In other words, structured financial planning can help MSME actors reduce production costs and manage business capital more efficiently. Financial planning is an important element in business operations, because through this planning, MSME actors can determine the priority of needs for the short, medium, and long term. In addition, the implementation of good financial planning allows MSMEs to run business activities more smoothly and reduce the risk of financial problems in the future. The results of this study support the findings of previous research conducted by (Yerianto & Mustaqim, 2024) which states that clear financial planning helps MSMEs reduce production costs and business capital. This is important for business success and avoiding financial problems.

Based on the results of the study analyzed using multiple linear regression, it was found that financial literacy and financial planning as independent variables have a positive and significant relationship with the financial behavior of MSME actors in Candi District, Sidoarjo as a dependent variable. The higher the level of financial literacy and financial behavior of MSME actors, the better the performance and financial management achieved. This is proven by (Nurlela, Zulaiha, & Dimyati, 2025), namely the level of financial literacy is proven to provide a positive and significant relationship with the financial management behavior of MSMEs which is indicated by a significance value of $p < 0.05$. In other words, the better the financial literacy of MSME actors, the more optimal they are in managing their business finances.

In addition, another study from (Nuraeni, Dai, & Thirafi, 2024), also strengthens the findings that financial literacy and financial behavior together provide a significant positive relationship to MSME performance, with a contribution reaching 49.8% while the rest is influenced by other factors that are not included in the scope of this study. Thus, the relationship between dependent and independent variables in this context is proven to be strong and significant according to various journals.

## Conclusion

This study concludes that financial literacy and financial planning have a significant effect on the financial behavior of MSMEs in Candi District, Sidoarjo Regency. The results of the hypothesis test show that the two independent variables of financial literacy and financial planning partially have a positive and significant impact on financial behavior. Specifically, MSMEs with higher levels of financial literacy tend to show better financial behavior, such as cash flow management and appropriate financial decision making. On the other hand, good financial planning allows business actors to set short-term to long-term priorities, minimize unnecessary expenses, and run their businesses more efficiently and sustainably. Therefore, increasing the knowledge and awareness of MSMEs regarding the importance of financial literacy and planning is very necessary to support the growth and resilience of their businesses.

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