

## The Effects of Financial Literacy on the Profitability of SMEs in Malang District, Indonesia

Kartika DS Susilowati<sup>1\*</sup>, Nur Indah Riwijanti<sup>2</sup>, and Kurnia Ekasari<sup>3</sup>

<sup>1,2,3</sup> Accounting Department, State Polytechnic of Malang, Indonesia

### Article Info

#### Article history:

Received 09 22, 2025

Revised 09 29, 2025

Accepted 09 30, 2025

#### Keywords:

*Financial Attitude*

*Financial Behavior*

*Financial Knowledge*

*Financial Literacy*

*Profitability*

### ABSTRACT

This study investigated the relationship between financial literacy, which encompasses financial behavior, attitudes, and knowledge, and the profitability of small and medium enterprises in the food and beverage industry in Malang District, Indonesia. The reason for bringing this up is that the results of earlier research on the relationship between SMEs' financial success and financial literacy are still ambiguous and inconsistent. The data were collected using a questionnaire distributed to 107 business owners and managers. The relationship between profitability and financial literacy, including financial behavior, attitudes, and knowledge, was examined using multiple linear regression analysis. The results of the analysis showed a significant positive influence of financial attitude and knowledge on profitability. Financial behavior, however, had no impact on profitability. The results of this study are expected to increase the awareness of the government and related financial organizations regarding the significance of financial literacy for SMEs, particularly in relation to programs designed to improve their business capacity through financial literacy training and education.

#### Corresponding Author:

Kartika DS Susilowati

Accounting Department, State Polytechnic of Malang, Indonesia; [kartika.dewi@polinema.ac.id](mailto:kartika.dewi@polinema.ac.id)

## INTRODUCTION

The COVID-19 pandemic which occurred in early 2020 has significantly impacted on how the Indonesian economy has developed. This is because the Indonesian Government (GoI) has implemented certain regulations that limiting social interaction among members of large groups to prevent the virus from spreading. The restrictions on community activities have reduced the operational activities of small, and medium enterprises (SMEs) affecting their capacity to remain in business. This strategy has caused the Indonesian economy to contract by roughly 2.19% based on actual GDP growth (Haryono, 2021; OECD, 2021; Pink, 2021). According to the Indonesian Chamber of Commerce and Industry, the COVID-19 epidemic was the main factor behind the shutdown of up to 30 million of the 64.2 million SMEs (Pratama, 2020).

The importance of small and medium-sized enterprises (SMEs) in the expansion of the Indonesian economy and the creation of job opportunities has been recognized by the government and other relevant players (Thaha, 2020). The 64.2 million SMEs in Indonesia are able to employ 97% of the country's workforce and contribute 60% of Gross Domestic Product (Anastasya, 2023). Therefore, future economic growth in Indonesia is greatly impacted by the SMEs' sustainability. However, their inability to manage and direct their organization's funds efficiently and professionally affects their capacity to sustain business operations (Losane, 2013; Eniola & Entebang, 2016). This challenge arises from various factors, including the complexity of financial transactions, a lack of financial knowledge, and insufficient time to learn about financial management (Joo & Grable, 2000). In

addition, the adaptability of the management team also affects the capacity of SMEs to survive and thrive in the unpredictable business condition (Bibi et al., 2020).

Malang District is selected as the location of this research due to several reasons. First, it is one of the fastest-growing economic regions in East Java Province. According to regional government data, SMEs contribute significantly to employment and revenue generation, especially in the food and beverage, retail, and creative industries that are highly concentrated in the area. Second, Malang District offers a wide range of SME characteristics, from more organized small and medium businesses to more conventional microenterprises. It is the perfect place to investigate the relationship between financial literacy and profitability in a variety of industries and firm sizes because of its diversity. Third, the Malang District has been actively implementing various initiatives and programs to support the development of the small and medium enterprise sector, one of which is through increasing financial literacy (Fitria et al., 2021), as this initiative is believed to reduce the likelihood of financial vulnerability (Chhatwani & Mishra, 2021). It is expected that the findings would have significant practical implications, and can be used to influence policies and programs aimed at improving the competitiveness of SMEs in Malang and other similar areas in Indonesia.

It is widely recognized that financial literacy in numerous countries is generally low, regardless of their level of development (Michaud, 2017). SMEs with low financial literacy face challenges in acquiring knowledge about financial services and products (Miller et al., 2009), which can lead to poor decision-making that ultimately impacts their financial management and access to resources. On the other hand, SMEs with financial literacy are better equipped to find, understand, and evaluate relevant information that is critical to their organization's financial stability (Ameyaw, 2022). The essence of financial literacy is the ability to apply money management wisely and effectively. Empirical research indicates that the majority of owner-managers of SMEs in both developed and developing nations have a deficiency in financial literacy (Cole et al., 2009; Lusardi & Tufano, 2009). They have limited access to formal credit due to their inadequate knowledge of credit sources and its terms and conditions (Chowdhury, 2007, and Yakob et al., 2021).

Banks and other financial institutions, on the other hand, have also viewed the SME sector as risky, costly, and difficult to serve (Ackah & Vuvor, 2011). Therefore, lack of financial literacy is a significant barrier that can impact the expansion of small businesses (Eniola & Entebang, 2016). Financial literacy equips businesses with the knowledge and skills necessary to assess financial products and services and helps them deal with difficult financial situations (Fitria et al., 2021; Tuffour et al., 2020). According to Tuffour et al. (2020), financial literacy is still considered a fascinating concept and a critical support function that determines an entity's existence. A study revealed the correlation between the performance level of small and medium-sized businesses (SMEs) and financial literacy (Rahim & Balan, 2020a). This study used three distinct measures to clarify the notion of financial literacy: financial knowledge, financial behavior, and financial attitudes. The results of the study demonstrate a positive correlation between the profitability of SMEs and their levels of financial behavior, attitude, and knowledge. Several studies have also shown significant relationships (Agyapong & Attram, 2019; Aribawa, 2016; Usama, K. M., & Yusoff, 2019).

Nonetheless, the results of earlier research remain ambiguous and inconsistent, yielding conflicting results regarding the connection between SMEs' financial success and financial literacy (Yakob et al., 2021). Several studies demonstrate that there is no correlation between the financial performance of small and medium-sized enterprises (SMEs) and their level of financial literacy (Bruhn & Zia, 2011; Eresia-Eke & Raath, 2013; Menike, 2019). OJK (2016) believe that since Indonesia differs from other nations in terms of culture, ways of thinking, legal concerns, business practices, political climate, and other aspects, it is necessary to confirm the link between financial literacy and SME performance in the Indonesian context. Therefore, this study aims to examine the impact of financial literacy on the profitability of small and medium-sized enterprises (SMEs). The results of this study contribute to the understanding of the correlation between the financial prosperity of small and

medium-sized enterprises (SMEs) and their level of financial literacy, particularly in developing countries where prior research on this issue is limited.

The rest of the paper is structured as follows: The second part presents a comprehensive assessment of the literature and the development of hypotheses. Section three will mostly focus on research methodologies and measurements. The findings are presented and analyzed in the next section, followed by the conclusion, limitations, and areas for future study.

## **LITERATURE REVIEWS**

### **Financial Literacy**

Financial literacy refers to the fundamental understanding of money and its practical use in everyday situations. Studies indicate that entrepreneurs with a strong understanding of finance are more likely to achieve success in managing small and medium-sized enterprises (SMEs) compared to those with limited financial literacy (Lusardi & Mitchell, 2014; Refera et al., 2016). The Organization for Economic Co-Operation and Development (OECD) is one of the pioneering institutions which established a formal definition of financial literacy. Financial literacy encompasses the understanding, expertise, abilities, mindset, and conduct necessary to make informed financial choices and ultimately achieve personal welfare. This definition has been acknowledged globally and endorsed by the G20 in 2012 (OECD, 2021).

The Financial Services Authority defines financial literacy as a collection of procedures and practices that are intended to improve the understanding, proficiency, and capacities of customers and the general public in handling their financial affairs efficiently and responsibly (OJK, 2016). Financial literacy is a tool that could help business owners to be able to run their businesses and provide financial knowledge to make decisions. Small and medium businesses can plan their long-term business finances better if they have better financial skills (Feliipe et al., 2017). Research conducted over the past two decades has consistently shown a positive correlation between a higher level of financial literacy and improved financial outcomes. Therefore, financial literacy has become a crucial competency for small and medium business owners. This study proposes three measures of financial literacy: financial knowledge, financial behavior, and financial attitudes (Oseifuah, 2010). There are differences in financial literacy in terms of knowledge, attitude, and behavior (Ameyaw, 2022); the three terms are described below:

### **Financial Knowledge**

Financial knowledge refers to the understanding and practical use of concepts and principles of finance encountered in everyday life (OECD, 2021). The OECD acknowledges that financial knowledge is an important determinant of the fundamental financial terminology and concepts required for everyday functioning (Huston, 2010). Financial literacy relates to one's proficiency in various aspects of the financial domain, including financial instruments and competencies (Ameyaw, 2022). A comprehensive understanding of financial knowledge is crucial for making informed decisions in financial activities, which might provide favorable outcomes in the long term (Lusardi & Tufano (2009). The level of knowledge regarding financial services and products is utilized to assess an individual's financial literacy. (Yakob et al., 2021). Financial knowledge is associated with positive outcomes, as it promotes behaviors such as budgeting and the establishment of a safety net.

Rahim and Balan (2020) discovered a positive association between the profitability of micro, small, and medium-sized businesses (SMEs) and the degree of financial literacy. The study by Agyapong and Attram (2019) also revealed significant connections, demonstrating the importance of financial literacy as a critical support function that determines an entity's life beyond its primary functions (such as providing goods or services). Evidence from previous research regarding the connection between SMEs' profitability and financial literacy is inconsistent (Yakob et al., 2021). Numerous studies suggest that there is no relationship between SMEs' financial success and their degree of financial literacy (Bruhn & Zia, 2011; Eresia-Eke & Raath, 2013; Menike, 2019).

Profitability is a measure of successful financial management and an essential factor for performance evaluation, as it reflects a company's ability to turn a profit and determines how well it manages its resources (Sanistasya et al., 2019).

### **Financial Behavior**

Financial behavior is also considered one of essential concepts in the field of finance. Spending and saving, keeping track of finances, and making plans for future financing are the main focuses of financial behavior. Financial behavior is a cognitive factor which can influence decision making (Dai et al., 2021). The field of financial behavior encompasses the study of an individual's financial management practices, examining their psychological and habitual tendencies (Amanah et al., 2016). Individual financial behavior closely correlates with their level of financial responsibility. The financial behavior of SME owners can significantly influence the direction of the business and impact profit results. Moreover, strong financial behavior enables these businesses to compete on a global scale (Lusardi & Mitchell, 2014). According to a study published by Rahim and Balan (2020b), there is a substantial correlation between SMEs' financial behavior and profitability. However, research conducted by Potrich et al. (2016) shows that financial behavior does not have a significant impact on SMEs' profitability or other financial performance.

### **Financial Attitude**

Financial attitude refers to the application of financial ideas to decision-making and efficient resource management to produce and preserve wealth (Menike, 2019). Meanwhile, Chowa and Despard (2014) define individual's financial attitude as their state of mind, beliefs, and judgments regarding personal financial matters. Financial attitudes can be measured through dimensions such as money management, adherence to a monthly spending plan, control of monthly expenses, establishment of future financial goals, and monthly savings (Fitri and Narto, 2020). Regular saving, managing liquidity, getting insurance, and receiving sound financial counsel are all signs of a positive financial attitude. Managers who possess financial knowledge and expertise have a favorable outlook on financial management, budgeting, and other financial issues, which influences their attitude and participation in the financial services industry (Tuffour et al., 2020). According to Rahim and Balan (2020), there is a connection between SMEs' profitability and their financial attitudes. Menike (2019) demonstrated that financial attitudes and SME financial management practices are positively correlated. Therefore, an individuals' financial attitude plays a crucial role in shaping their approach toward money management, personal budgeting, and investment decision-making.

### **Financial Literacy and the Profitability of SMEs**

Research conducted by Sanistasya et al. (2019) shows a direct relationship between financial literacy and the profitability of small businesses. The survey conducted in the study included measures of behavior, knowledge, skills, and attitude related to financial literacy. Small businesses depend on financial literacy to support their growth and development because it equips them with the knowledge, skills, and abilities needed to design strong financial plans, make informed decisions, and choose the best financial services. Consequently, the acquisition of financial literacy empowers small enterprises to foster growth and enhance their profitability, productivity, and competitive edge. A study conducted by Chhatwani and Mishra (2021) confirms that financial literacy significantly influences SMEs' capacity to secure loans and formulate budgets. The combination of ideas, knowledge, and affective states of acquiring knowledge engenders a state of preparedness to respond optimally, resulting in more efficacious decision-making that yields financial gains for entrepreneurs (Potrich et al., 2016). Those who achieve business success possess a strong understanding of financial literacy and a tendency to save and invest for the future (Eniola & Entebang, 2016).

In order to examine the association between financial literacy indicators and profitability, the following hypotheses are developed, supported by theoretical frameworks and empirical data.

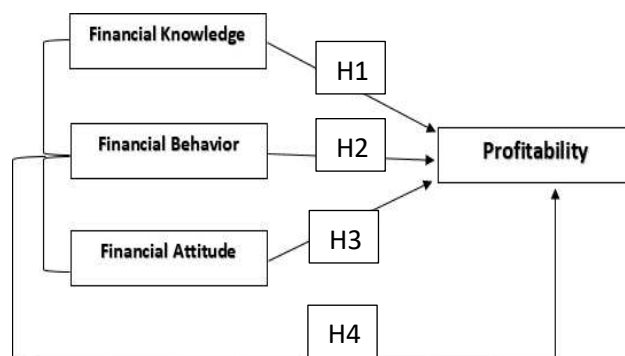
H1: Financial knowledge has a significantly positive effect on the profitability of smes.

H2: Financial behavior has a significantly positive effect on the profitability of smes.

H3: Financial attitude has a significantly positive effect on the profitability of smes.

H4: The profitability of SMEs is significantly impacted by financial behavior, attitude, and knowledge.

The framework illustrated in Figure 1 can be employed to clarify the impact of financial literacy on profitability. In the same way, financial behavior and financial attitude also influence profitability. Furthermore, profitability can also be influenced by factors such as financial knowledge, financial conduct, and financial attitude.



*Figure 1. Research Framework*

## METHODS

Initially, the researchers conducted validity and reliability tests. Employing a multiple regression analysis, they first performed traditional assumption tests to ensure the model was appropriate for this investigation. This study utilized a questionnaire with a four-point likert scale, and interviews. Interviews can help prevent potential errors that may arise from misinterpreting questions. The effect of financial literacy on the profitability of the target sample was evaluated using a correlational test. The impact on profitability was measured using financial knowledge, behavior, and attitudes as independent variables.

The research participants consisted of small and medium business operators in the food and beverage industry in Malang District, Indonesia. The sample size for this study was determined using Slovin's idea commonly used in statistical analysis. According to data from the Central Bureau of Statistics, 7,203 small and medium enterprises (SMEs) were operating in the food and beverage industry in 2022. The study's sample criteria included small and medium enterprises that have been in business for at least three years, ensuring a fair and unbiased research approach. Based on annual sales, this study evaluated the categorization of small and medium enterprises by Law No. 20 of 2008, which regulates small and medium enterprises.

## RESULT AND DISCUSSIONS

### Respondents' Characteristics

The characteristics of the respondents, including age, educational attainment, and business age, are displayed in Table 1. As the table indicates, the oldest respondent was sixty-three years old, while the youngest was twenty-two years old. The mean age was 37 years. The study found that the majority of businesses were owned by young people. This may be because the demographic area selected for the study included young people who were more active and prepared to launch their own businesses rather than relying on older people for support and dependence. The majority of the respondents had either a basic education (12%) or a secondary education (54%), with the remaining respondents having



completed university education (34%). The examination of education was required because these factors greatly influence their literacy level (Lusardi et al., 2017). Concerning the number of years in business, the minimum was three years, and the maximum was 22 years.

*Table 1: Respondents' Characteristics*

Age	Amount	Percentage
< 26 years old	17	16%
26 – 35 years old	23	21%
36 – 45 years old	34	32%
46 – 55 years old	28	26%
> 55 years old	5	5%
Educational Level	Amount	Percentage
Elementary School	4	4%
Middle School	8	8%
High School	58	54%
Diploma	10	9%
Bachelor	23	21%
Postgraduate	4	4%
Business Age	Amount	Percentage
3 – 8 years	65	61%
9 -14 years	24	22%
15 – 20 years	14	13%
> 20 years	4	4%
Total	107	100%

*Source: Collected from Primary Data, 2023*

## Descriptive Statistics

Table 2 presents the results of the descriptive test study, including the mean, standard deviation, maximum, and minimum values.

*Table 2: Descriptive Statistics*

	Observation	Min	Max	Mean	SD
Financial Knowledge	107	5	20	13,19	3,551
Financial Behavior	107	13	20	16,90	2,206
Financial Attitude	107	15	20	18,14	2,007
Profitability	107	3	11	6,49	2,242
Valid N (listwise)	107				

*Source: Data Processed, 2023*

## Financial Knowledge

A number of questions were posed to the owners and managers of SMEs to collect information on their overall financial knowledge levels regarding financial products, services, and concepts. The focus of the questions was on the participants' familiarity with financial services and products, including bank loans, savings accounts, current accounts, investment accounts, stocks and shares, and insurance. A four-point scale item was developed and administered to the respondents to assess their financial knowledge; one represents the lowest level of agreement, while four represents the highest

level of agreement. The results of the descriptive statistics related to the distribution of respondents' financial knowledge are presented in Table 3.

*Table 3: Responses Regarding Financial Knowledge*

Item No	Strongly Disagree		Disagree		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%
1	10	9,3%	22	20,6%	56	52,3%	19	17,8%
2	12	11,2%	19	17,8%	55	51,4%	26	24,3%
3	6	5,6%	26	24,3%	58	54,2%	17	15,6%
4	11	10,3%	44	41,1%	38	35,5%	14	13,1%
5	22	20,6%	43	40,2%	31	29,0%	11	10,3%

Source: Processed Primary Data, 2023

The result, as shown in Table 3 suggests that the small and medium business actors in East Java Province possess a reasonable level of financial understanding. The responses generated in this study indicate that 52.3% of respondents understand the interest rates banks offer, and 51.4% of respondents know bank products and understand the allocation of financial resources for banking products (54.2%). However, the response indicated that only 41.1% of respondents understand the financial concept and the time value of money.

### Financial Behavior

A four-point scale item, with one denoting the least agreement and four denoting high agreement, was also created and given to respondents in order to measure their degree of financial behavior. Monthly financial budgets, spending, purchasing decisions, borrowing, savings, cash flow monitoring, and tax and bill payment were all covered. The distribution of the respondents' financial behavior is presented in Table 4.

*Table 4: Responses Related to Financial Behavior*

Item No	Strongly Disagree		Disagree		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%
1	0	-	1	0,9%	52	48,6%	54	50,5%
2	3	2,8%	23	21,5%	47	43,9%	34	31,8%
3	2	1,9%	14	13,1%	48	44,9%	43	40,2%
4	0	-	2	1,9%	51	47,7%	54	50,5%
5	0	-	5	4,7%	29	27,1%	73	68,2%

Source: Processed Primary Data, 2023

As Table 4 indicates, the small and medium companies in East Java Province demonstrate strong financial practices. This is supported by the fact that a significant proportion of participants (50.5%) strongly believe in the benefits of price comparison before making a purchase, and that using cash as a payment method results in financial savings (43.9%). They were aware that making a payment in cash would result in a lower cost. Furthermore, 98% of individuals concur that documenting their monthly expenditures as part of a financial strategy and allocating funds for future needs is crucial, as it ensures the availability of sufficient funds for unforeseen circumstances.

## Financial Attitude

Financial attitude plays a crucial role in shaping personal approaches toward money management, personal budgeting, and investment decision-making. Financial attitudes were measured from dimensions such as managing money, having and complying with a monthly spending plan, controlling monthly expenses, setting future financial targets, and saving money every month. The outcomes of the respondents' responses to the financial attitude variable can be seen in Table 5.

Table 5: Responses on Financial Attitude

Item No	Strongly Disagree		Disagree		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%
1	0	-	0	-	31	29,0%	76	71,0%
2	0	-	0	-	51	47,7%	56	52,3%
3	0	-	0	-	46	43,0%	61	57,0%
4	0	-	0	-	33	30,8%	74	69,2%
5	0	-	0	-	38	35,5%	69	64,5%

Source: Processed Primary Data, 2023

Table 5 indicates the great financial attitude of small and medium business actors in East Java Province. Most respondents highly agree with the research statement regarding the importance of recording and saving business cash flow. Additionally, they also agree that separating business and personal money is essential and the spending should be based on a priority scale.

## Profitability

Table 6 shows that 55.1% of respondents had actual profits as expected, while 22.4% of respondents had actual profits less than expected, and the rest had actual profits more than expected.

Table 6: Actual Profit Classification

Classification	Freq	%
The actual profit is less than the estimate	24	22,4%
The actual profit equals the estimate	59	55,1%
The actual profit is more than the estimate	24	22,4%

Source: Processed Primary Data, 2023

The majority of small and medium enterprises in the food and beverage industry in Malang District reported net profit margins averaging between 11% and 30%. Additionally, 29 respondents indicated net profit margins between 31% and 50%, while only 8 respondents reported net profit margins exceeding 50%. Table 7 below presents the net profit margins.

Table 7: Net Profit Margin Classification

Classification	Frequency	Percentage
< 11%	29	27,1%
11% - 30%	47	43,9%
31% - 50%	23	21,5%
> 50%	8	7,5%

Source: Processed Primary Data, 2023



## Multiple Linear Regression Test Result

Table 8: Multiple Regression Output

Coefficient					
Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std Error	Beta	t	Sig.
Constant	-5,627	1,521		-3,699	0,000
Financial Knowledge	0,254	0,050	0,402	5,080	0,000
Financial Behavior	0,133	0,094	0,131	1,414	0,160
Financial Attitude	0,359	0,103	0,321	3,486	0,001

<sup>a</sup>. Dependent variable: Profitability

Source: Processed Primary Data, 2023

The formulation of the multiple linear regression model utilized in this investigation is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

$$Y = -5,627 + 0,254X_1 + 0,133X_2 + 0,359X_3$$

Table 8 above draws the following conclusions:

1. Assuming the values of the independent variables, financial knowledge (X1), financial conduct (X2), and financial attitude (X3) are constant, the profitability (Y) is going to decrease by 5,627 units.
2. The variable (X1) indicating financial knowledge exhibits a positive regression coefficient of 0.254. This finding suggests a positive correlation between financial literacy and profitability. Assuming all other variables remain unchanged, a 1% increase in the financial knowledge variable is associated with a 0.254 increase in profitability.
3. There exists a direct relationship between financial behavior and profitability, indicating that when financial behavior improves, profitability also increases, as indicated by the regression coefficient of 0.133 for the financial behavior variable (X2). A 1% rise in the financial behavior variable will result in a 0.133 increase in profitability, assuming all other variables stay constant. In contrast, a business's profitability decreases when its level of financial behavior declines.
4. There exists a direct relationship between profitability and financial attitude, as evidenced by the regression coefficient of 0.359 for the financial attitude variable (X3). An increase of 1% in the financial attitude variable will result in a profitability increase of 0.359, holding all other factors constant. This finding suggests a favorable relationship between a person's financial attitude and a business's profitability.

## Hypothesis Testing Result

### 1. T-test Result

In this study, the t-test was utilized to evaluate the degree to which independent factors affect the dependent variable. If the p-value is greater than the predetermined significance level of 0.05 ( $\alpha$ ), it is not possible to identify a statistically significant impact of the independent variable on the dependent variable. In contrast to the dependent variable, the independent variable exerts a substantial partial influence when the significance threshold ( $\alpha$ ) is below 0.05. The subsequent table presents the outcomes of the t-test:

Table 9: T-test Result

Coefficient	
Model	Sig

(Constant)	0,000
Financial Knowledge	0,000
Financial Behavior	0,160
Financial Attitude	0,001

Source: Processed Primary Data, 2023

The results above suggest the following explanation:

- The Effect of Financial Knowledge on Profitability

Table 9 demonstrates that there is a statistically significant correlation between the financial knowledge variable with a significance value of 0.000. The alternative hypothesis (H1) is accepted as this result is less than the accepted limit of 0.05. This suggests that financial knowledge is strongly correlated with profitability.

- The Effect of Financial Behavior on Profitability

As seen in Table 9, the financial behavior variable has a significance value of 0.160. The result indicates that the level of significance of the variable is higher than expected because it is above the normal cutoff criterion of 0.05. Consequently, the null hypothesis H2 is rejected. Therefore, it can be said that financial behavior has a small impact on profitability.

- The Effect of Financial Attitude on Profitability

The data presented in Table 9 indicate a statistically significant relationship between the financial attitude variable and profitability, as evidenced by a significance value of 0.001, which is below the normal cutoff of 0.05. Consequently, H3 is approved. Therefore, it may be concluded that one's financial attitude has a substantial influence on profitability. The findings of the analysis mentioned above can be succinctly described as follows:

Table 10: Hypotheses Testing

Hypotheses	Results
H1: Financial knowledge has a significant effect on the profitability of SMEs.	Accepted
H2: Financial behavior has a significant effect on the profitability of SMEs.	Rejected
H3: Financial attitude has a significant effect on the profitability of SMEs.	Accepted

Source: Processed Data, 2023

## 1. F-Test Result

This study employed an F-test to assess the combined influence of financial behavior, financial attitudes, and financial knowledge on the profitability of micro and small enterprises. The statistical significance threshold for this inquiry was established at 0.05 ( $\alpha = 5\%$ ). The F-test yielded the following outcomes:

Table 11: F-test Result

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	251,981	3	83,994	30,815	0,000 <sup>b</sup>
	Residual	280,748	103	2,726		

	Total	532,729	106			
--	-------	---------	-----	--	--	--

<sup>a</sup> Dependent variable: profitability

<sup>b</sup> Predictors: (Constant), Financial Knowledge, Fin. Behavior, Fin. Attitude

Source: Processed Primary Data, 2023

The significance value of 0.000 is indicated in Table 11. A significance score below 0.05 implies that the research findings show a significant simultaneous influence of financial knowledge, financial conduct, and financial attitudes on profitability.

## 2. The Coefficient of Determination

The determination test aims to quantify the extent to which the independent factors employed in this study account for the dependent variable. The coefficient of determination is calculated using the R-squared value, as illustrated in the table 12:

Table 12: The Coefficient of Determination

Model Summary				
Model	R	R Squares	Adjusted R Squares	Std. Error of the Estimate
1	0,688 <sup>a</sup>	0,473	0,458	1,651

Source: Processed Primary Data, 2023

The regression model's coefficient of determination is summarized in the result shown in Table 12. This study yielded an R-squared (coefficient of determination) of 0.473. This indicates that financial conduct (X2), financial attitude (X3), and financial knowledge (X1) have a 47.3% chance of influencing profitability. Other factors that are not covered in this study have an impact on the remaining 52.7%.

## RESULT AND DISCUSSION

### 1. The Effect of Financial Knowledge Variable on Profitability

Based on the research regression analysis, the financial knowledge variable significantly affects SMEs' profitability. This demonstrates that Malang District's SMEs in the food and beverage sector possess a high degree of financial expertise about banking products. However, their weaknesses are the lack of understanding of general financial principles and the ability to calculate the opening and closing balances. Having a solid understanding of financial principles makes it easier to record and prepare financial statements, make business decisions, and create efficient financial management plans. Without this knowledge, individuals may struggle to manage their finances effectively, leading to potential miscommunications and errors in budgeting. Therefore, investing time in financial education is crucial for fostering better financial practices and achieving long-term stability. Thus, one of the most important requirements for business organizations to overcome financial issues is financial competence. These findings are in line with previous research (Agyapong & Attram, 2019; Lusardi & Tufano., 2009; Rahim & Balan, 2020) which discovered a significant correlation between financial knowledge and SMEs profitability.

Interviews with other SME owners provide additional evidence to support these findings. Some respondents stated that, while they had created bank accounts and used digital payment apps, they rarely reconciled transactions or tracked monthly profit and loss in a regular manner. Others discovered that financial records were sometimes mixed with personal expenses, making it difficult to determine actual profitability. One food business owner stated, "We know how to collect money via bank transfers or QR payments, but we never actually analyze whether daily sales cover all expenses. We merely see if there is any money remaining." Another respondent addressed the difficulty of understanding financial

concepts, saying that, *"When the bank officer explains about loan interest, sometimes I just agree without fully calculating the impact on my business cash flow."* These opinions emphasize that, while access to banking products has expanded, a thorough understanding of financial principles remains limited. As a result, investing in financial education is critical for promoting healthy financial habits and guaranteeing long-term business viability. This study's findings support prior research (Agyapong & Attram, 2019; Lusardi & Tufano, 2009; Rahim & Balan, 2020), which found a strong and favorable association between financial expertise and SME profitability.

## 2. The Effect of Financial Behavior Variables on Profitability

The second hypothesis states that financial activity has a small effect on SMEs' profitability. It suggests that improving financial behavior has a minimal impact on increasing profitability, as it does not influence the profitability of SMEs in the food and beverage industry in Malang District. The results of this study shows that even though there is no significant impact on their profitability, SME owners in the food and beverage sector in Malang District have great financial behavior. The majority of SME owners do not have staff members with the expertise to handle financial management; instead, their primary concern is the survival and profitability of their enterprise. Less focus has been placed on the application of financial behavior, particularly in financial recording. Applying for a bank capital loan is just one of the several advantages of a business's financial behavior as documented in its financial records. The findings of this study align with the research conducted by Esiebugie et al. (2018), which asserts that financial behavior has a minimal influence on business performance. Profitability is utilized as a substitute for business performance in both studies.

Interview findings highlight this gap between knowledge and practice. One respondent confessed, *"I write expenses only when I remember. Sometimes small costs like packaging or delivery are forgotten, so my calculation of profit is not accurate."* Another stated, *"We make a budget at the beginning of the month, but if sales drop, we just adjust without revising the budget. So, it's not really systematic."* Despite these challenges, some SMEs demonstrated exemplary behaviors. A food enterprise owner explained, *"Every night, I input sales and expenses into a simple Excel sheet. From there, I know exactly how much margin I get. This helps me plan promotions and purchases for the next week."* These accounts reinforce the idea that financial behavior—translating knowledge and attitude into daily practices—is the most direct determinant of profitability. This is consistent with previous research which emphasizes that disciplined financial practices strongly predict firm performance (Lusardi & Tufano, 2009; Agyapong & Attram, 2019).

## 3. The Effect of Financial Attitude Variable on Profitability

The results of the study show that the financial attitude variable statistically has a significant impact on the SMEs' profitability. The study's findings indicate that most SMEs in Malang District's food and beverage industry have excellent financial attitudes and a focus on the future. In this study, 69.2% of participants strongly agreed that future planning is important, and 64.5% strongly agreed that expenditure decisions should be made using a priority scale. These findings also show that a financial attitude could assist business actors in planning and making business decisions that could impact business profitability. These findings are consistent with earlier studies (Esiebugie et al., 2018; Menike, 2019; Rahim and Balan, 2020), which found a strong link between the success of SMEs and the financial attitudes of their individuals, which in turn significantly affects the latter's profitability. Thus, it can be said that an individual's or an organization's financial attitude significantly influences its level of profitability.

Data from interviews support this conclusion even further. Several respondents underlined the need of separating company and personal funds as a matter of principle. One respondent stated, *"If I mix family and business money, I'll never know whether my business is truly profitable or not. So I discipline myself to keep them apart."* Another small business owner had a forward-thinking attitude: *"Even though my profit is small, I always set aside a little for savings. It offers me the comfort and*

*confidence to confront unexpected expenses.*" On the other hand, others admitted to taking a more relaxed approach to debt. One person said, *"I think loans are risky, so I avoid them even though sometimes I need extra capital to grow."* These differing views show how mindset influences financial decisions and, eventually, profitability. This is consistent with previous research, which revealed that positive financial attitudes—such as prudence, planning, and goal orientation—help SMEs maintain consistent profitability (Rahim & Balan, 2020).

#### 4. The Effect of Financial Literacy (Knowledge, Behavior, and Attitude) on Profitability

The F-test results indicate that the financial literacy characteristics, comprising financial behavior, financial knowledge, and financial attitudes, has a significant impact on the profitability of SMEs. The results of the study indicate a positive correlation between an entrepreneur's literacy level and the profitability of their business. These findings of this study are consistent with the research conducted by Sanistasya et al. (2019), which discovered a direct correlation between financial literacy and the success of SMEs. They found that financial literacy has a positive effect on profitability, one of the indicators used to evaluate the operation of small businesses. SMEs that possess strong financial literacy are more capable of making informed decisions and choosing financial services due to their available resources, expertise, and abilities. They can enhance their growth and gain a competitive edge by increasing their production, profits, and level of financial acumen.

The interview results support these findings. Several SME owners claimed that their inadequate abilities to create financial reports and compute opening and closing balances made it difficult to monitor cash flow and regulate expenses. Respondents with more financial expertise, on the other hand, reported being more disciplined in terms of budgeting, saving aside emergency finances, and assessing the possibility of business expansion. Some entrepreneurs also indicated that having a healthy financial attitude, such as being prudent when taking out loans and saving consistently, helped them avoid excessive risks and handle debt more successfully. These real-world examples demonstrate how literacy is more than just a theoretical competency; it is also a practical tool that influences daily business decisions.

The findings of Rahim and Balan (2020), also demonstrated the significant influence of budgeting and financial literacy on the operations of small and medium-sized firms (SMEs) to loans. Business professionals who possess an excellent knowledge of finance tend to have greater confidence in their skills and are more proactive in resolving their financial challenges. The entrepreneurial process and the skills of business players have a major role in SMEs' success or failure. Increasing financial literacy in terms of investment, protection, and financial management reduces the risk of fraud or financial catastrophe. Consequently, financial literacy facilitates decision-making, which enhances corporate performance.

## CONCLUSION

This study examined the impact of financial literacy on the profitability of small and medium-sized enterprises (SMEs). The study's findings demonstrated that financial knowledge and attitude have a significant positive impact on profitability. However, financial behavior has a little effect on profitability. This study confirms previous research that found a substantial link between financial literacy and the expansion of entrepreneurial ventures, indicating a global issue with insufficient financial literacy. It is expected that enhancing financial literacy will minimize risks, promote prudent financial decision-making, and maximize the potential for profit growth for SMEs. Consequently, proactive steps must be taken to ensure that entrepreneurs have an appropriate level of financial literacy since financially literate managers are better at identifying, analyzing, and assessing significant information that is crucial for the financial viability of their organization.

Small and medium-sized enterprises often have inadequate managerial and financial skills, as well as a lack of financial literacy. This lack of financial literacy affects an entrepreneur's chances of success in both their personal and professional lives, making it one of the biggest issues facing SMEs



in Indonesia. Based on empirical evidence, a lack of financial management competencies is associated with an organization's inability to obtain finance, which in turn hinders the acquisition of a suitable debt-to-equity ratio and ultimately results in insolvency. These flaws harm SMEs' ability to innovate, expand, and survive. It is expected that the study's findings will help raise awareness among the government and related financial institutions regarding the importance of financial literacy for SMEs, especially with regard to initiatives aimed at strengthening their business capacity through financial literacy education and training.

Our findings represent a preliminary investigation on the relationship between financial literacy and profitability of SMEs in Malang District. However, this study has limitations, such as a small sample size and a limited period of time. By using bigger, more varied samples and different data sources, future studies could overcome these limitations and provide a better understanding of SMEs' business practices and how they affect financial success. It is recommended that future research expand the range of variables examined in this study to include bank interest rates, inflation, and government regulations to offer more significant insights into the factors that can affect SMEs profitability.

## ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to the head of the SMEs Indonesian Trade and Industry Commission (KADIN SMEs) of Malang District, for their invaluable support and guidance throughout this research. Learning from SMEs experts who are well informed about their industry is both advantageous and fascinating. We would also like to express our gratitude and appreciation to all parties for their input and criticism in completing this paper. Their insights have been invaluable in refining our arguments and enhancing the overall quality of our work.

## REFERENCES

- Ackah, John & Vuvor, Silvester (2011). *The Challenges faced by Small & Medium Enterprises (SMEs) in Obtaining Credit in Ghana*. Master's Thesis in Business Administration, MBA programme, School of Management, Blekinge Tekniska Hogskola <https://www.diva-portal.org/smash/get/diva2:829684/FULLTEXT01.pdf>
- Agyapong, D., & Attram, A. B. (2019). Effect of Owner-Manager's Financial Literacy on The Performance of SMEs in the Cape Coast Metropolis in Ghana. *Journal of Global Entrepreneurship Research*, 9(67), 1–13. <http://dx.doi.org/10.1186/s40497-019-0191-1>
- Amanah, E., Rahadian, D., & Iradianty, A. (2016). Pengaruh Financial Knowledge, Financial Attitude dan External Locus of Control Terhadap Personal Financial Management Behavior Pada Mahasiswa S1 Universitas Telkom. *E-Proceeding of Management*, 3(2), 1228–1235. <https://openlibrarypublications.telkomuniversity.ac.id/index.php/management/article/view/1448>
- Ameyaw, M. (2022). Financial Literacy and Financial Inclusion for Small-Scale Enterprises in Sunyani Municipality in the Brong -Ahafo Region of Ghana. *Journal of African Studies and Development*, 14(3), 99–107. DOI: 10.5897/JASD2022.0661
- Anastasya, A. (2023). Data UMKM, Jumlah dan Pertumbuhan Usaha Mikro, Kecil dan Menengah di Indonesia. *UKMIndonesia.Id*. [https://ukmindonesia.id/baca-deskripsi-posts/data-umkm-jumlah-dan-pertumbuhan-usaha-mikro-kecil-dan-menengah-di-indonesia#google\\_vignette](https://ukmindonesia.id/baca-deskripsi-posts/data-umkm-jumlah-dan-pertumbuhan-usaha-mikro-kecil-dan-menengah-di-indonesia#google_vignette)
- Aribawa, D. (2016). Pengaruh literasi keuangan terhadap kinerja dan keberlangsungan UMKM di Jawa Tengah. *Jurnal Siasat Bisnis*, 20(1), 1–13. <https://journal.uin.ac.id/JSB/article/view/4424>
- Bibi, S., Khan, A., Qian, H., Garavelli, A. C., Natalicchio, A., & Capolupo, P. (2020). Innovative climate, a determinant of competitiveness and business performance in Chinese law firms: The role of firm size and age. *Sustainability*, 12(12), 4948. <https://doi.org/10.3390/su12124948>
- Bruhn, M., & Zia, M. (2011). Stimulating managerial capital in emerging markets: the impact of business and financial literacy for young entrepreneurs. In *World Bank Policy Research Working Series* (Vol. 5642). <http://www->



- [wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/04/27/00015834920110427082512/Rendered/PDF/WPS5642.pdf](https://wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/04/27/00015834920110427082512/Rendered/PDF/WPS5642.pdf)
- Chhatwani, M., & Mishra, S. K. (2021). Does financial literacy reduce financial fragility during COVID-19? The moderation effect of psychological, economic, and social factors. *The International Journal of Bank Marketing*, 39(7), 114–1133. <https://doi.org/10.1108/ijbm-11-2020-0536>.
- Chowa, G. A., & Despard, M. R. (2014). *The influence of parental financial socialization on youth's financial behavior: Evidence from Ghana*. 35, 376–389. <https://link.springer.com/article/10.1007/s10834-013-9377-9>
- Chowdhury, M. S. (2007). Overcoming Entrepreneurship Development Constraints: The Case of Bangladesh. *Journal of Enterprising Communities People and Places in the Global Economy*, 1(3), 240–251. <https://doi.org/10.1108/17506200710779549>
- Cole, S., Sampson, T., & Zia, B. (2009). *Financial literacy, financial decisions, and the demand for financial services: Evidence from India and Indonesia*, Working Paper, 09-117, p.1-51. Harvard Business School. <https://www.hbs.edu/ris/Publication%20Files/09-117.pdf>
- Dai, R., Feng, H., Hu, J., Jin, Q., Li, H., Wang, R., & Zhang, X. (2021). The impact of COVID-19 on small and medium-sized enterprises (SMEs): Evidence from two-wave phone surveys in China. *China Economic Review*, 67(101607). <https://doi.org/10.1016/j.chieco.2021.101607>.
- Eniola, A. A., & Entebang, H. (2016). Financial literacy and SME firm performance. *Journal of Research Studies in Management*, 5(1), 31–43. <https://doi.org/10.5861/ijrsm.2015.1304>
- Eresia-Eke, C. E., & Raath, C. (2013). SMME Owners' Financial Literacy and Business Growth. *Mediterranean Journal of Social Sciences*, 4(13), 397–406. <https://www.richtmann.org/journal/index.php/mjss/article/view/1528>
- Esiebugie, U., Agwa, T. R., & Asenge, L. E. (2018a). Financial Literacy and Performance of Small and Medium Enterprises in Benue state, Nigeria. . . *International Journal of Economics, Business, and Management Research*, 2(4), 65–79. [https://ijebmr.com/uploads/pdf/archivepdf/2020/IJEBMR\\_02\\_230.pdf](https://ijebmr.com/uploads/pdf/archivepdf/2020/IJEBMR_02_230.pdf)
- Felipe, I. J., Ceribeli, H. B., & Lana, T. Q. (2017). Investigating the level of financial literacy of university students. *Revista de Administração, Contabilidade e Economia-RACE*, 16(3), 845–866. <https://ssrn.com/abstract=3087554>
- Fitri, Sarnawiah., & Narto, O. (2020). Development And Validation Of Student's Financial Attitude Instruments. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 4(3), 1516–1523. <https://doi.org/10.31955/mea.v4i3.637>
- Fitria, I., Soejono, F., & Tyra, M. J. (2021). Literasi keuangan, sikap keuangan dan perilaku keuangan dan kinerja UMKM. *Journal of Business and Banking*, 1(1), 1–15. <https://doi.org/10.14414/jbb.v1i1.2496>
- Haryono, E. (2021). *Indonesia's economy in quarter III of 2021 grows 3.51%*. Bank Indonesia. [https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp\\_2329121.aspx](https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2329121.aspx)
- Huston, S. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, 44(2), 296–316. . <https://www.jstor.org/stable/23859793>
- Joo, S. H., & Grable, J. E. (2000). Improving employee productivity: The role of financial counseling and education. *Journal of Employment Counseling*, 37(1), 2–15. <https://onlinelibrary.wiley.com/doi/abs/10.1002/j.2161-1920.2000.tb01022.x>
- Losane, L. (2013). Innovation culture—determinant of firm sustainability. *International Journal of Economics and Management Engineering*, 7(10), 2755–2760. <https://doi.org/10.5281/zenodo.1088492>
- Lusardi, A., Michaud, P.-C., & Mitchell, O. S. (2017). Optimal financial knowledge and wealth inequality. *Journal of Political Economy*, 125(2), 431–477. <https://www.journals.uchicago.edu/doi/abs/10.1086/690950>

- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Lusardi, A., & Tufano, P. (2009). *Debt Literacy, Financial Experiences, and Overindebtedness*. Working Paper W14808, National Bureau Of Economic Research, Cambridge, MA 02138 [https://www.nber.org/system/files/working\\_papers/w14808/w14808.pdf](https://www.nber.org/system/files/working_papers/w14808/w14808.pdf)
- Menike, L. M. C. S. (2019). Effect of financial literacy on firm performance of Small and Medium Enterprises in Sri Lanka. *Financial Markets & Corporate Governance Conference*. p.1-25 <https://dx.doi.org/10.2139/ssrn.3306719>
- Michaud, P. (2017). *The value of financial literacy and financial education for workers*. <http://wol.iza.org/articles/the-valueof-financial-literacy-and-financial-education-for-workers>
- Miller, M., Godfrey, N., Levesque, B., & Stark, E. (2009). *The Case for Financial Literacy in Developing Countries: Promoting Access to Finance by Empowering Consumers*. <http://www.oecd.org/dataoecd/35/32/43245359.pdf>
- OECD. (2021). *Economic Outlook, interim report March 2021*. Retrieved from: [https://www.oecd.org/en/publications/oecd-economic-outlook/volume-2\\_34bfd999-en.html](https://www.oecd.org/en/publications/oecd-economic-outlook/volume-2_34bfd999-en.html)
- OJK. (2016). *Survei Nasional Literasi dan Inklusi Keuangan*. Otoritas Jasa Keuangan. [https://sikapiuangmu.ojk.go.id/FrontEnd/images/Document/buku%20statistik\\_2016.pdf](https://sikapiuangmu.ojk.go.id/FrontEnd/images/Document/buku%20statistik_2016.pdf)
- Oseifuah, E. K. (2010). Financial Literacy and Youth Entrepreneurship in South Africa. *African Journal of Economic and Management Studie*, 1(2), 164–182. <https://doi.org/10.1108/20400701011073473>
- Pink, B. (2021). *Indonesia's economy in 2020 grew negative 2.07%, the first time since 1998*. Retrieved from: <https://nasional.kontan.co.id/news/ekonomi-indonesia-tahun-2020-tumbuh-negatif-207-pertama-kali-seince-1998-1>
- Potrich, A. C. G., Kelmara, M. V., & Wesley, M. D. S. (2016). Development of a financial literacy model for university students. In *Management Research Review* (Vol. 39, Issue 3). <https://ideas.repec.org/a/eme/mrrpps/v39y2016i3p356-376.html>
- Pratama, A. M. (2020). *Kadin: Around 30 Million MSMEs closed due to the Covid-19 pandemic*. Retrieved from <https://money.kompas.com/read/2020/07/28/170100126/kadin--around-30-juta-umkm-Tutup-karena-pandemi-covid-19>
- Rahim, S., & Balan, V. R. (2020). Financial Literacy: The impact on the profitability of the SMEs in Kuching. *International Journal of Business and Society*, 21(3), 1172–1191. [https://www.researchgate.net/publication/351236539\\_Financial\\_Literacy\\_The\\_Impact\\_on\\_the\\_Profitability\\_of\\_the\\_SMEs\\_in\\_Kuching#fullTextFileContent](https://www.researchgate.net/publication/351236539_Financial_Literacy_The_Impact_on_the_Profitability_of_the_SMEs_in_Kuching#fullTextFileContent) [accessed August 18, 2022].
- Refera, M. K., Dhaliwar, N. K., & Kaur, J. (2016). Financial literacy for developing countries in Africa: A review of concept, significance and research opportunities. *Journal of African Studies and Development*, 8(1), 1–12. <https://academicjournals.org/journal/JASD/article-full-text-pdf/7B4FCFE56826>
- Sanistasya, P. A., Rahardjo, K., & Iqbal, M. (2019). Pengaruh Literasi Keuangan dan Inklusi Keuangan Terhadap Kinerja Usaha Kecil di Kalimantan Timur. *Jurnal Economia*, 15(1), 48–59. <https://journal.uny.ac.id/index.php/economia/article/view/23192/pdf>
- Thaha, A. F. (2020). Impact of COVID-19 on MSMEs in Indonesia. *BRAND Scientific Journal of Marketing Management*, 2(1), 147–153. <https://ejournals.umma.ac.id/index.php/brand/article/view/607/445>
- Tuffour, J., Amoako, A. A., & Amartey, E. (2020). Assessing the effect of financial literacy among managers on the performance of small-scale enterprises. *Global Business Review*. <https://journals.sagepub.com/doi/10.1177/0972150919899753>
- Usama, K. M., & Yusoff, W. F. (2019). (2019). The impact of financial literacy on business performance. 3(10), 84–91. [https://www.researchgate.net/profile/Muhammad-Usama-3\(10\),](https://www.researchgate.net/profile/Muhammad-Usama-3(10),)

---

[12/publication/346939404 The Impact of Financial Literacy on Business Performance/links/5fd3249da6fdcc697bf711f4/The-Impact-of-Financial-Literacy-on-Business-Performance.pdf](https://journal.ebizmark.id/index.php/abaj/publication/346939404-The-Impact-of-Financial-Literacy-on-Business-Performance/links/5fd3249da6fdcc697bf711f4/The-Impact-of-Financial-Literacy-on-Business-Performance.pdf)

Yakob, S., Rusli, R. Z. A., Yakob, R., & Hafizuddin-Syah, B. (2021). Financial literacy and financial performance of small and medium-sized enterprises. *The South East Asian Journal of Management*, 15(1), 72–96. Available at: <https://doi.org/10.21002/seam.v15i1.13117>.