



Financial knowledge, skills, and attitudes as predictors of traders' financial literacy

Graziella Wiguna, Evelyn*

Universitas Kristen Petra, Surabaya, Jawa Timur, Indonesia

*Correspondence author: evelyn@petra.ac.id

DOI: <https://doi.org/10.65881/integration.v1i2.87>

ARTICLE INFO

History:

Received: 05-31-2026

Revised: 06-04-2026

Accepted: 06-05-2026

Published: 06-11-2026

Keywords:

financial literacy;
financial knowledge;
financial skill;
financial attitude;
human capital theory.

ABSTRACT

Purpose: to investigate whether financial knowledge, financial skill, and financial attitude serve as significant predictors of financial literacy among traders at Gedhe Market Solo.

Method: this study adopted a quantitative, cross-sectional research design. Primary data were collected through questionnaires from 113 traders at Gedhe Market Solo, selected through random sampling. The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS to assess the effects of financial knowledge, financial skill, and financial attitude on financial literacy.

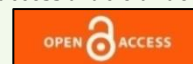
Findings: financial knowledge, financial skill, and financial attitude significantly and positively influence financial literacy among traders. Financial knowledge was found to be the most influential factor, followed by financial attitude and financial skill. These results highlight the importance of enhancing traders' knowledge, skills, and attitudes to improve their financial literacy.

Implications: efforts to improve traders' financial literacy should focus on strengthening financial knowledge, financial skills, and financial attitudes through targeted financial education and training programs.

Originality: lies in its focus on traditional market traders at Gedhe Market Solo and its comprehensive examination of financial knowledge, financial skill, and financial attitude as predictors of financial literacy.



Open access article under CC-BY-SA license.



Introduction

Financial literacy is a crucial competency for business owners, including traditional market traders, as it relates to the ability to manage business finances, make sound economic decisions, and maintain business sustainability and development (Babajide et al., 2023). In an era of increasingly complex business competition, traders are not only required to be competent in trading activities but also to possess a sufficient understanding of financial management, the use of financial products and services, and

business financial planning (Nkwinka & Akinola, 2023). Therefore, improving financial literacy is a key agenda for developing the micro and small business sector in Indonesia.

The importance of financial literacy for business owners has prompted the government to make it a primary target of its financial education and inclusion program (Currie et al., 2022). For three consecutive years, from 2018 to 2020, the government implemented a financial literacy program for merchants through various educational and mentoring activities (OJK, 2021). However, the lack of systematic monitoring and evaluation of these programs has made it impossible to definitively determine their effectiveness in improving merchants' financial literacy. This situation complicates the process of identifying the most effective education methods and hinders the allocation of resources to programs that have the greatest impact on improving merchants' financial literacy (Suleiman et al., 2022).

Despite the implementation of various programs, numerous studies indicate that the financial literacy level of market traders remains relatively low. Several studies have found that traders experience limitations in accessing formal financial institutions, particularly regarding obtaining business capital (Boudreaux et al., 2022; Senyo et al., 2023; Talip & Wasiuzzaman, 2024). This limited access to financing has an impact on the decline in the ability of businesses to grow and ultimately affects trader performance (Abdallah et al., 2025; Amadasun & Mutezo, 2022; Kurniasari et al., 2023). Research conducted by Akhtar & Malik (2023) shows that the financial literacy level of traders is in the moderate category. These findings indicate that traders have knowledge and confidence in financial institutions, but lack adequate skills in utilizing financial products and services. Furthermore, a 2013 OJK survey showed that the financial literacy level of micro and small business actors reached only 15.7%, lower than the national financial literacy rate of 21.8% (Mahya et al., 2025).

The phenomenon of low financial literacy was also found among traders at Gedhe Market Solo. Gedhe Market is one of the largest traditional markets and a tourist icon of Solo, serving as a center of economic activity. Based on initial interviews with six traders, it was found that most lacked a clear business budget, separated personal and business finances, and prepared simple financial reports. As a result, traders were unable to determine the net profit generated from their business activities accurately. Furthermore, limited financial record-keeping made it difficult for traders to meet administrative requirements for obtaining financing from formal financial institutions. This situation prompted some traders to resort to high-interest loans, which ultimately reduced business profits and limited their ability to expand.

The literature shows that various individual factors influence financial literacy. Polisetty et al. (2021) found that financial knowledge, financial skills, and financial attitudes are factors that influence financial literacy among entrepreneurs. This finding is supported by Firli (2017); Banthia & Dey (2022), who stated that financial knowledge and financial attitudes influence financial literacy. Furthermore, Dewi et al. (2020) found that financial skills and financial knowledge are important determinants of financial literacy. Financial knowledge is a theoretical understanding of financial concepts and issues that enables individuals to understand, analyze, and manage finances appropriately to avoid various financial problems (Morris et al., 2022; Shi et al., 2025). Financial knowledge differs from financial literacy because it focuses only on the knowledge and understanding of financial concepts or products. In contrast, financial literacy encompasses the ability to apply that knowledge in decision-making and daily financial management (Merter & Balcioğlu, 2025). Individuals with good financial knowledge tend to be better able to understand various financial product and service

options, thus enabling them to make more informed financial decisions. The higher a person's level of financial knowledge, the higher their level of financial literacy (Yuliani, 2019). Empirical findings show that financial knowledge significantly influences financial literacy (Chaulagain, 2015; Polisetty et al., 2021).

Besides knowledge, financial skills are also a crucial factor in developing financial literacy. Financial skills are an individual's ability to use financial knowledge and understanding to manage various financial situations, solve financial problems, and exploit available economic opportunities (Bawono et al., 2022). Financial skills also relate to an individual's ability to make informed financial decisions, thereby reducing the risk of financial problems (Kumar et al., 2023). The OECD (2016) explains that financial skills include the ability to create a budget, control expenses, conduct financial planning, and resolve financial problems. Unlike financial literacy, which combines knowledge, skills, and the ability to apply them in everyday life, financial skills emphasize the practical aspects of financial management (Kaiser & Menkhoff, 2017). Individuals with strong financial skills tend to be more able to manage their finances effectively, thus achieving a higher level of financial literacy (Dewi et al., 2020; Polisetty et al., 2021).

Another factor influencing financial literacy is financial attitude. Financial attitude is an individual characteristic that reflects a person's motivation, readiness, and inclination to engage in certain financial practices or actions (Swiecka et al., 2019). Individuals with positive financial attitudes tend to have a better orientation toward financial management, are more responsible in using financial resources, and are more motivated to learn various financial concepts needed for decision-making (Baptista & Dewi, 2021). Research by Polisetty et al. (2021) shows that financial attitude has a direct influence on financial literacy among entrepreneurs. Although the relationship between financial knowledge, financial skills, financial attitudes, and financial literacy has been extensively studied, several research gaps remain that require attention. Most previous research was conducted on university students, the general public, or business owners in general, while research specifically examining traditional market traders is relatively limited.

Research on the financial literacy of market traders in Central Java, particularly Gedhe Market Solo, is still very limited. This is despite Gedhe Market's unique characteristics as a large traditional market inhabited by multigenerational traders with diverse socioeconomic backgrounds. Previous research has rarely examined the influence of financial knowledge, financial skills, and financial attitudes simultaneously in the context of traditional market traders, resulting in a lack of a comprehensive description of the relative contribution of each variable in shaping financial literacy. Based on this gap, the novelty of this study lies in simultaneously examining the influence of financial knowledge, financial skills, and financial attitudes on financial literacy among traders at Gedhe Market Solo. Furthermore, this study provides the latest empirical evidence on the financial literacy of traditional market traders in Central Java, who have multigenerational characteristics and face unique business financial management challenges.

This study aims to analyze the influence of financial knowledge, financial skills, and financial attitudes on the financial literacy of traders at Gedhe Market, Solo. This research is important because good financial literacy is believed to improve traders' ability to manage their businesses, access formal financing sources, and enhance long-term business sustainability. Therefore, the results of this study are expected to serve as a basis for the government, the Financial Services Authority, financial institutions, and

market managers in designing more effective financial education and empowerment programs tailored to the needs of traditional market traders. Theoretically, this study is expected to enrich the development of literature on financial literacy, particularly in the context of traditional market traders in Indonesia. Practically, this study is expected to provide input for traders in improving their business financial management skills, assist financial institutions in understanding the characteristics of traders' financial literacy, and serve as a reference for future researchers interested in developing studies on financial literacy in the micro and small business sector.

Human capital theory explains that knowledge is a form of human capital that can improve an individual's ability to understand information, solve problems, and make more effective decisions. In a financial context, financial knowledge reflects an individual's level of understanding of financial concepts, products, and services. At the same time, financial literacy encompasses not only this understanding but also the ability to apply it in daily financial management and decision-making (Merter & Balcioglu, 2025). Therefore, financial knowledge is the main foundation in developing financial literacy because individuals with good financial knowledge are better able to understand various financial alternatives, manage financial resources effectively, and avoid mistakes in financial decision-making. The higher a person's level of financial knowledge, the higher their level of financial literacy (Yuliani, 2019). This relationship is supported by research by Chaulagain (2015); Polisetty et al. (2021), which found that financial knowledge has a positive and significant effect on financial literacy. Based on this description, the following hypothesis is formulated: H1: Financial knowledge has a positive effect on the financial literacy of market traders.

According to human capital theory, skills are part of human capital that enable individuals to apply their knowledge to achieve better results. In a financial context, financial skills are the ability to apply financial knowledge in concrete actions, such as preparing budgets, managing cash flow, keeping financial records, and making appropriate financial decisions (OECD, 2016). Meanwhile, financial literacy reflects a broader ability, namely understanding and using financial information effectively in everyday life (Kaiser & Menkhoff, 2017). Thus, financial skills play a crucial role in improving financial literacy because individuals with good financial skills are better able to manage their finances effectively, understand the benefits of financial products, and make more rational financial decisions. Dewi et al. (2020) explain that poor financial management skills can lead to financial problems and low financial literacy. Furthermore, Polisetty et al. (2021) found that financial skills have a positive effect on financial literacy among entrepreneurs. Based on this description, the following hypothesis is formulated: H2: Financial skills have a positive effect on the financial literacy of market traders.

Human capital theory explains that, in addition to knowledge and skills, attitude is also part of human capital that influences how individuals use their resources. Financial attitude is a psychological tendency that reflects an individual's views, beliefs, motivations, and responsibilities towards financial management (Swiecka et al., 2019). A positive financial attitude will encourage individuals to be more careful in using money, be more disciplined in financial planning, and be more motivated to improve their understanding of various financial aspects. This condition will support the development of better financial literacy because individuals not only understand financial concepts but also have the willingness to apply them in their daily lives. Baptista and Dewi (2021) explain that good financial attitudes can increase individuals' motivation to learn and understand financial concepts and make wise financial decisions. These findings are

supported by research by Firli (2017); Polisetty et al. (2021), which shows that financial attitude has a positive effect on financial literacy. Based on this description, the following hypothesis is formulated: H3: Financial attitude has a positive effect on the financial literacy of market traders.

Method

This study uses a quantitative approach with an associative research design. The quantitative approach was chosen because the study aims to examine the influence of financial knowledge, financial skills, and financial attitudes on financial literacy among traders at Gedhe Market, Solo. Associative research is used to explain the causal relationship between variables through hypothesis testing that has been formulated based on theoretical foundations and the results of previous research. The population in this study was all traders active in Gedhe Market, Solo, whether selling in kiosks, stalls, or as second-hand goods traders. Based on market management data, the population of traders is estimated at 1,500 people. The sample size was determined using the Slovin formula, resulting in a sample size of 116 respondents. The sampling technique used was probability sampling with a simple random sampling method, so that each member of the population has an equal opportunity to be selected as a research respondent. The use of this technique is expected to produce a representative sample and reduce the potential for bias in the data collection process.

The data used in this study are primary data obtained through direct questionnaire distribution to traders at Gedhe Market, Solo. Data collection was carried out during the research period of 2025. The dependent variable in this study is financial literacy. The independent variables are financial knowledge, financial skills, and financial attitudes. More detailed operational variables can be seen in Table 1. The questionnaire was compiled based on indicators that have been used and tested in previous studies, thus having a strong theoretical basis in measuring each research construct. All statement items in the questionnaire were measured using a five-point Likert scale, namely score 1 = strongly disagree, score 2 = disagree, score 3 = neutral, score 4 = agree, and score 5 = strongly agree. The Likert scale is used because it is able to measure respondents' perceptions, attitudes, and level of agreement with the statements asked more systematically. To provide a descriptive picture of the respondents' conditions, the levels of financial literacy, financial knowledge, financial skills, and financial attitudes were grouped based on the mean value of respondents' answers. Based on the calculation of the scale range, a mean value above 3 is categorized as high, while a mean value below 3 is categorized as low. Data analysis was carried out using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method with the help of SmartPLS software.

Table 1 operationalization of variables

Variables	Operational definition	Indicator	Source
Financial literacy (FL/Y)	An individual's ability to understand and apply financial concepts in daily financial decision making and management	Budgeting, savings, loans, investments	Remund (2010)
Financial knowledge (FK/X1)	The level of individual understanding of financial concepts and information required in financial decision making	Saving and spending, planning and budgeting, informed decision making	Swiecka et al. (2019)
Financial skill (FS/X2)	An individual's ability to apply financial knowledge to manage and	How to earn income, manage money, invest money,	Swiecka et al. (2019)

Variables	Operational definition	Indicator	Source
Financial attitude (FA/X3)	make financial decisions Individual attitudes and tendencies in viewing and managing finances responsibly	understand loan costs Long-term orientation, continuous learning	Swiecka et al. (2019)

Results and discussion

The research data was obtained by distributing questionnaires to 116 traders at Gedhe Market Solo. Table 2 presents the characteristics of the respondents who made up the research sample. These characteristics include questionnaire status, length of trading experience, type of merchandise, and sales location. The presentation of respondent characteristics aims to provide a general overview of the profile of the Gedhe Market Solo traders who were the object of the research, thus supporting the interpretation of the research results.

Table 2 respondent characteristics

Characteristics	Category	Frequency	Percentage (%)
Questionnaire status	Questionnaires distributed	116	100
	Questionnaires suitable for processing	113	97,41
	Questionnaires unsuitable for processing	3	2,59
Year of trading	15–25 years	52	46
	26–40 years	50	44
	> 40 years	11	10
Type of merchandise	Cooked food	23	20
	Vegetables	21	19
	Snacks	17	15
	Groceries	12	11
	Drinks	11	10
	Others	29	25
Sales location	Los	71	63
	Oprokan	28	25
	Kiosk	14	12
Total		113	100

Source: primary data, processed

Table 2 presents the characteristics of the study respondents based on questionnaire status, length of trading experience, type of merchandise, and sales location. Of the 116 questionnaires distributed to traders at Gedhe Market Solo, 113 were deemed suitable for analysis, while 3 questionnaires (2.59%) were unusable due to incomplete completion. Thus, the data suitability level used in this study reached 97.41%, indicating that the data obtained was sufficient for further analysis. Based on the length of trading experience, the majority of respondents, 52 respondents (46%), had been in business for 15–25 years. Furthermore, 50 respondents (44%) had been in business for 26–40 years, while 11 respondents (10%) had more than 40 years of trading experience. These findings indicate that most traders at Gedhe Market Solo have long and relatively stable business experience, thus being accustomed to the dynamics of trading in traditional markets.

In terms of merchandise types, respondents had a fairly high level of business diversity. The largest group was cooked food vendors (23 people) (20%), followed by vegetable vendors (21 people) (19%), snack vendors (17 people) (15%), basic food vendors (12 people) (11%), and beverage vendors (11%). Meanwhile, another 29 respondents (25%) were engaged in various types of merchandise such as fruit, spices,

fish, meat, eggs, household appliances, and even pottery. This diversity indicates that economic activity in Gedhe Market Solo is very heterogeneous, which has implications for differences in financial management needs among vendors. Based on their sales location, the majority of respondents occupied market stalls, namely 71 people (63%). In addition, 28 respondents (25%) were unsold goods vendors who sold in the open market area, while 14 respondents (12%) occupied permanent kiosks. The dominance of stall traders shows that trading activities at Gedhe Market Solo are still dominated by traditional trading systems with a high level of interaction between traders and buyers.

Table 3 presents the descriptive statistics for the financial literacy variable based on the eight statement indicators used in the study. The table illustrates respondents' level of understanding and ability in budgeting, savings, borrowing, and investment, which are the main components in measuring financial literacy.

Tabel 3 statistik deskriptif financial literacy

FL	Statement	Mean
FL1	I understand the benefits and how to create a budget	4.19
FL2	I am able to create a budget	4.12
FL3	I understand the benefits of saving at a bank	3.90
FL4	I am able to open a savings account at a bank	4.11
FL5	I understand interest rates and loan repayments	4.09
FL6	I am able to apply for a loan at a bank	4.07
FL7	I know the different types of investments (e.g., stocks, gold, land, houses, etc.)	4.08
FL8	I know how to invest	4.16
Average		4.09

Source: primary data, processed

Based on Table 3, it can be seen that the financial literacy variable, measured through eight statements from the indicators, showed an average value of 4.09. This value indicates that the general level of financial literacy of traders at Gedhe Market Solo is in the high category. This indicates that respondents have a fairly good understanding and ability to manage financial aspects, including budgeting, savings, loans, and investments. In the budgeting indicator, respondents demonstrated a very good level of understanding, with an average score of 4.19 for statements regarding understanding the benefits and how to create a budget, and 4.12 for the ability to prepare a budget. These results indicate that most traders have the awareness and ability to conduct business financial planning, although in practice, the level of implementation can vary. In the savings aspect, respondents also demonstrated a good level of understanding, with an average score of 3.90 for understanding the benefits of saving in a bank and 4.11 for the ability to open a bank account. This indicates that traders have sufficient access to and understanding of banking services, although their understanding of the benefits of saving is relatively lower compared to other indicators.

Regarding loans, an average score of 4.09 for understanding interest rates and loan repayments and 4.07 for the ability to apply for loans at banks indicates that respondents have sufficient knowledge and experience regarding access to formal financing. This indicates that some traders have connected with formal financial institutions, although challenges remain in optimizing the use of credit services. Meanwhile, regarding investments, respondents demonstrated a good understanding, with an average score of 4.08 for knowledge of investment types and 4.16 for understanding how to invest. These results indicate that although investment literacy is still basic, traders have an initial awareness of various investment instruments that can

be used for business development and long-term financial management. These results indicate that the financial literacy of traders at Gedhe Market Solo is in the high category, reflecting that respondents have a sufficient understanding and ability to manage finances. However, improvements in certain conceptual understanding aspects are still needed.

Table 4 presents the descriptive statistics for the financial knowledge variable based on six statement indicators measured by respondents' correct answers. This table illustrates the level of understanding of Gedhe Market Solo traders regarding the basic concepts of financial management, budget planning, and economic conditions that influence financial decisions.

Tabel 4 statistik deskriptif financial knowledge

FK	Statement	Correct
FK1	For me, eating out isn't a necessity	82
FK2	I can definitely buy a house, car, kios, or other valuable assets if I save diligently	80
FK3	I need to create a budget to manage my finances and control my spending well	84
FK4	Large expenses must be planned and prepared for by saving well in advance	77
FK5	When inflation occurs, I have to raise the prices of my merchandise to avoid losses	81
FK6	If inflation occurs, my sales will likely decrease	77

Source: primary data, processed

Based on Table 4, it can be seen that the financial knowledge variable, measured through six statements, indicates a relatively high level of understanding among traders at Gedhe Market Solo. This is evident from the high number of correct answers for each statement, indicating that most respondents have a good basic knowledge of financial management concepts. In the first statement, 82 respondents understood that eating at a restaurant is not a necessity, demonstrating the respondents' ability to distinguish between needs and wants. In the second statement, 80 respondents stated that consistent saving can help in purchasing valuable assets such as a house, vehicle, or kiosk, reflecting an understanding of the importance of long-term savings accumulation.

Furthermore, regarding the financial planning statement, 84 respondents recognized the importance of budgeting to manage finances and control spending, the highest score for this variable. This indicates that traders have a strong awareness of the importance of financial planning in both business and household activities. In the following statement, 77 respondents understood that large expenses should be planned and saved well in advance, indicating an understanding of the concept of long-term financial planning, although still slightly lower than the other indicators.

Regarding economic conditions, 81 respondents understood that inflation can influence pricing decisions for merchandise, while 77 respondents understood that inflation has the potential to reduce sales turnover. These results indicate that most traders have a basic understanding of the impact of macroeconomic conditions on their business activities, although a small number of respondents still do not fully understand this relationship. These results indicate that the financial knowledge of traders at Gedhe Market Solo is in the good category, as indicated by the high rate of correct answers across all indicators. This condition indicates that traders have a sufficient understanding of basic financial concepts that can form the basis for financial decision-making in daily business activities.

Table 5 presents the descriptive statistics of the financial skills variable based on six statement indicators measured using a Likert scale. This table illustrates the level of

financial skills of traders at Gedhe Market Solo in managing income, expenses, savings, investments, and financial decision-making.

Table 5 descriptive statistics of financial skills

FS	Statement	Mean
FS1	I keep records of income and expenses for my business	4.03
FS2	The number and variety of my merchandise continues to grow over time	4.11
FS3	I save regularly	4.04
FS4	I compare prices and quality before deciding to buy	4.22
FS5	I have investments (assets/long-term savings) that can later be resold at a high price (e.g., gold, houses, and livestock)	4.01
FS6	Before applying for a loan, I will compare several financial institutions	4.01
Average		4.07

Source: primary data, processed

Based on Table 5, it can be seen that the financial skills variable for traders at Gedhe Market Solo shows an average value of 4.07, which is included in the high category. This indicates that respondents generally have good financial skills in managing both personal and business finances. For the first statement, namely financial recording, the average value obtained was 4.03, indicating that most traders have recorded business income and expenses, although the level of discipline can vary. This reflects traders' awareness of the importance of financial recording in supporting business management. For the statement regarding business development, namely increasing the number and variety of merchandise, the average value obtained was 4.11. These results indicate that most respondents have the ability to develop their business gradually, indicating skills in managing and allocating business resources dynamically. Furthermore, for the savings aspect, the average value obtained was 4.04, indicating that respondents have a habit of saving fairly regularly. This reflects the existence of financial management behaviors that support long-term financial stability, although there is still variation in consistency.

The highest average score for the consumption decision-making question, which involves comparing price and quality before purchasing, was 4.22. This indicates that respondents possess excellent rational judgment skills before making a purchase, reflecting efficient financial management skills. Meanwhile, the investment and loan questions each obtained an average score of 4.01. These results indicate that most traders already possess long-term assets or investments such as gold, houses, or livestock, and tend to compare assets before applying for loans from financial institutions. This indicates that respondents possess basic skills in investment management and business financing. These results indicate that the financial skills of traders at Gedhe Market Solo are in the high category, reflecting strong financial management skills, making economic decisions, and developing sustainable businesses.

Table 6 presents descriptive statistics for the financial attitude variable based on four statement indicators measured using a Likert scale. This table illustrates the financial attitudes of traders at Gedhe Market Solo regarding savings management, debt use, and awareness of the importance of economic and financial knowledge.

Table 6 descriptive statistics of financial attitude

FA	Statement	Mean
FA1	I don't think I should spend my savings on buying something I want	4.22

FA	Statement	Mean
FA2	I think I can go into debt as long as I have the ability/income to pay it back	3.89
FA3	I don't think managing my finances is difficult to learn	4.00
FA4	I think I need to read/listen to the latest news on economics and finance	4.09
Average		4.05

Source: primary data, processed

Based on Table 6, it can be seen that the financial attitude variable among traders at Gedhe Market, Solo, showed an average value of 4.05, which is included in the high category. This indicates that respondents generally have a positive financial attitude in managing both personal and business finances. For the first statement, the average value obtained was 4.22 for the statement that savings should not be spent on buying something desired. This result indicates that most traders have a fairly disciplined attitude in managing their savings and tend to prioritize needs over wants, reflecting a prudent financial attitude. For the second statement, regarding views on the use of debt, the average value obtained was 3.89. This indicates that some respondents still have a relatively cautious view of the use of debt, although there is a tendency to accept debt as long as they still have the ability to repay it. This condition reflects a moderate financial attitude in dealing with financing risks.

Furthermore, the statement that financial management is not difficult to learn obtained an average score of 4.00. This indicates that respondents have a positive attitude towards their ability to learn financial management, indicating an openness to improving financial knowledge and skills. The final statement, regarding awareness of keeping up with developments in economic and financial information, obtained an average score of 4.09. These results indicate that most traders are concerned about external information that can affect their financial condition, thus reflecting a proactive attitude in improving economic and financial understanding. Overall, these results indicate that the financial attitude of traders at Gedhe Market Solo is in the high category, reflecting a positive financial attitude, discipline, and a good awareness of the importance of financial management and information.

Table 7 presents the cross-tabulation results of financial knowledge (FK), financial skills (FS), and financial attitudes (FA) on the financial literacy (FL) of traders at Gedhe Market, Solo. This table is used to observe the distribution of respondents based on the low and high categories for each variable and their relationship to financial literacy levels.

Table 7 cross tabulation results

Variables		FL	
		Low	High
FK	Low	9	33
	High	3	68
FS	Low	7	8
	High	5	93
FA	Low	9	21
	High	3	80

Source: primary data, processed

Based on Table 7, the cross-tabulation results show the relationship between financial knowledge (FK), financial skills (FS), and financial attitudes (FA) and the financial literacy (FL) of traders at Gedhe Market, Solo, classified into low and high

categories. In general, it can be seen that respondents with high levels of financial literacy are dominated by respondents who also have high levels in the three independent variables. For the financial knowledge variable, 68 respondents with high financial knowledge are also in the high financial literacy category, while only 3 respondents are in the low financial literacy category. Conversely, in the low financial knowledge group, there are 33 respondents in the high financial literacy category and 9 respondents in the low category. This indicates a tendency that the higher the financial knowledge, the higher the respondents' financial literacy.

For the financial skills variable, the majority of respondents with high financial skills also had high financial literacy, namely 93 respondents. Meanwhile, only 5 respondents with high financial skills were in the low financial literacy category. In the low financial skills group, there were 8 respondents with high financial literacy and 7 respondents with low financial literacy. This pattern indicates that financial skills have a fairly strong relationship with financial literacy, where increased financial skills tend to be followed by increased financial literacy. For the financial attitude variable, 80 respondents with high financial attitudes also had high financial literacy, while only 3 respondents were in the low financial literacy category. Conversely, in the low financial attitude group, there were 21 respondents with high financial literacy and 9 respondents with low financial literacy. This finding indicates that a better financial attitude tends to be followed by a higher level of financial literacy. Overall, the cross-tabulation results show a tendency for a positive relationship between financial knowledge, financial skills, and financial attitudes on the financial literacy of traders at Gedhe Market Solo, where high categories in the independent variables are more often followed by high financial literacy categories.

Table 8 presents the results of the structural model test, including path coefficients, t-statistics, and p-values to examine the influence of financial knowledge, financial skills, and financial attitudes on the financial literacy of traders at Gedhe Market, Solo. Furthermore, this table also displays the adjusted R-squared value, indicating the model's ability to explain the dependent variable.

Table 8 structural model results

Hypothesis	Coef.	t-stat	P-value
H1: FK → FL	0.723	10.457	0.000
H2: FS → FL	0.020	2.250	0.038
H3: FA → FL	0.206	2.656	0.008
R-square adj: 0.838			

Source: primary data, processed

Based on Table 8, the results of the structural model test indicate that financial knowledge, financial skills, and financial attitudes influence the financial literacy of traders at Gedhe Market, Solo, with varying levels of significance. This research model also has an adjusted R-square value of 0.838, indicating that 83.8% of the variation in financial literacy can be explained by the three independent variables, while the remaining 16.2% is influenced by other variables outside the research model. The results of the first hypothesis test indicate that financial knowledge has a positive and significant effect on financial literacy with a coefficient value of 0.723, a t-statistic of 10.457, and a p-value of 0.000. These values indicate that financial knowledge has the strongest influence compared to other variables in this research model.

Furthermore, the results of the second hypothesis test indicate that financial skills also have a positive and significant effect on financial literacy with a coefficient

value of 0.020, a t-statistic of 2.250, and a p-value of 0.038. Although the coefficient value is relatively small, these results still indicate that financial skills have a significant influence on improving traders' financial literacy. The results of the third hypothesis test indicate that financial attitude has a positive and significant effect on financial literacy with a coefficient value of 0.206, a t-statistic of 2.656, and a p-value of 0.008. This indicates that good financial attitudes also contribute to improving the financial literacy of traders at Gedhe Market Solo. The results of this study indicate that all independent variables, namely financial knowledge, financial skills, and financial attitudes, have a positive and significant influence on financial literacy, with financial knowledge as the most dominant factor.

The influence of financial knowledge on financial literacy

The research results show that financial knowledge has a positive influence on the financial literacy of traders at Gedhe Market, Solo. This finding indicates that the better the traders' financial knowledge, the greater their ability to manage their finances effectively, including budgeting, savings, loans, and investments. Financial knowledge has been shown to be a crucial foundation for shaping how individuals understand financial information and apply it to everyday economic decision-making.

This finding can be explained through human capital theory, which states that an individual's knowledge and skills constitute human capital that can enhance productive capabilities and decision-making quality. In this study, financial knowledge is a component of human capital that strengthens traders' cognitive capacity to understand financial concepts and information. The greater the knowledge capital possessed, the better an individual's ability to process financial information, thereby improving overall financial literacy.

The results of this study also align with previous research conducted by Chaulagain (2015); Yuliani (2019); Polisetty et al. (2021), which stated that financial knowledge plays a crucial role in improving financial literacy. These studies confirm that individuals with good financial literacy tend to be better able to understand financial products, manage risks, and make more rational financial decisions. Therefore, the results of this study reinforce the consistency of previous empirical findings in different contexts, particularly among traditional market traders.

Empirically, field conditions show that traders with better financial literacy tend to be more focused on managing their businesses. They are better able to differentiate between needs and wants, understand the importance of financial planning, and are more cautious in making decisions regarding loans and investments. Conversely, traders with limited financial literacy tend to lack clear financial planning, resulting in less than optimal business management. This demonstrates the crucial role of financial knowledge in shaping more rational and structured financial behavior.

The implications of these findings suggest that improving financial literacy among traders can be achieved through strengthening financial knowledge as a form of human capital investment. The government, financial institutions, and market managers need to provide financial education programs that are not only theoretical but also practical and applicable, tailored to the needs of traders. Going forward, improving financial literacy will focus not only on improving conceptual understanding but also on ongoing mentoring so traders can consistently and sustainably implement financial knowledge in business management.

The influence of financial skills on financial literacy

The research results show that financial skills have a positive effect on the financial literacy of traders at Gedhe Market, Solo. This finding indicates that the better the traders' financial skills, the higher their ability to manage their finances effectively. Financial skills are reflected in activities such as financial record-keeping, income and expense management, savings skills, and more rational financial decision-making in daily business activities.

This finding can be explained through human capital theory, which states that individuals with better skills will have higher quality human capital, thereby increasing productivity and the quality of economic decisions. In the context of this research, financial skills are a part of applied human capital, as they relate not only to knowledge but also to practical financial management skills. The higher the financial skills a trader possesses, the more effective they are in applying financial knowledge to practical actions, ultimately improving financial literacy.

The results of this study also align with previous research conducted by Dewi et al. (2020); Polisetty et al. (2021), which stated that financial skills have a positive influence on financial literacy. This research shows that financial skills play a crucial role in helping individuals manage their finances in a more structured manner, avoid financial mistakes, and improve their ability to make sound economic decisions. Therefore, this study's results reinforce previous empirical evidence that financial skills are a crucial factor in improving financial literacy.

Empirically, field conditions show that traders with better financial skills tend to be more disciplined in recording business finances, more selective in spending, and more planned in managing working capital. They are also more careful in making decisions regarding savings, investments, and loans. Conversely, traders with lower financial skills tend to rely on habits without clear record-keeping, making it difficult to evaluate their business's financial condition objectively. This demonstrates that financial skills play a crucial role in shaping more systematic and measurable financial behavior.

The implications of these findings suggest that improving financial literacy can be achieved not only through increased knowledge but also through strengthening practical skills in financial management. Therefore, practical training programs such as simple financial record-keeping, cash flow management, and financial decision-making simulations are needed for market traders. Going forward, financial skills development needs to be carried out continuously so that traders not only understand financial concepts but are also able to consistently implement them in their daily business activities.

The influence of financial attitude on financial literacy

The research results show that financial attitude positively influences the financial literacy of traders at Gedhe Market, Solo. This finding indicates that the better the traders' financial attitudes, the higher their level of financial literacy. Financial attitude is reflected in how individuals view the importance of savings management, their attitudes toward debt, their openness to learning about finance, and their awareness of keeping up with economic information that can influence financial decisions.

This finding can be explained through human capital theory, which emphasizes that the quality of human capital is determined not only by knowledge and skills but also by an individual's attitude in utilizing existing resources. In the context of this research, financial attitude plays a role as an affective aspect of human capital, influencing an

individual's motivation and willingness to manage their finances better. A positive financial attitude encourages individuals to be more disciplined, responsible, and open to financial learning, ultimately improving financial literacy.

The results of this study align with previous research conducted by Firli (2017); Baptista and Dewi (2021); Polisetty et al. (2021), which stated that financial attitudes have a positive influence on financial literacy. These studies indicate that individuals with positive financial attitudes tend to be wiser in making financial decisions, more cautious in using debt, and more active in seeking financial information. Therefore, the results of this study reinforce the consistency of previous empirical findings in various contexts, including micro-entrepreneurs and traditional market traders.

Empirically, field conditions show that traders with positive financial attitudes tend to be more disciplined in managing their savings, less likely to use funds for non-essential consumption, and more cautious in making decisions regarding loans. Furthermore, traders with positive financial attitudes are also more open to learning new things related to financial management and are more aware of economic information that could impact their business. Conversely, traders with negative financial attitudes tend to be less focused on their financial management and are more susceptible to making poor financial decisions.

The implications of these findings indicate that improving financial literacy depends not only on knowledge and skills but is also significantly influenced by developing positive financial attitudes. Therefore, financial literacy programs for market traders need to encompass mindset and attitude changes, such as developing financial discipline, awareness of the importance of long-term financial planning, and increasing motivation to continue learning about finance. Moving forward, strengthening financial attitudes will be crucial so that traders not only understand and are able to manage their finances but also demonstrate a commitment and consistency in implementing healthy financial behaviors sustainably.

Conclusions

Research shows that financial knowledge, financial skills, and financial attitudes have a positive effect on financial literacy. These findings indicate that increased financial knowledge, financial skills, and good financial attitudes will be followed by an increase in traders' ability to understand and manage financial aspects such as budgeting, savings, loans, and investments. Among these three factors, financial knowledge is the most dominant factor in explaining traders' financial literacy levels. These results emphasize the importance of human capital in shaping an individual's ability to make more rational and effective financial decisions. Theoretically, this study provides empirical support for human capital theory, which explains that knowledge, skills, and attitudes are forms of human capital that can improve an individual's ability to manage their resources. Practically, these research results have implications for the government, financial institutions, and market managers to focus financial literacy programs more on strengthening traders' financial knowledge, skills, and attitudes in an integrated manner.

However, this study has several limitations. First, the study was conducted only on traders from Gedhe Market Solo, so the results cannot be generalized to all traditional market traders in Indonesia. Second, the study only used three independent variables, so there are still other factors that could potentially influence financial literacy but were not accommodated in the research model. Based on these limitations, future research is recommended to expand the scope of the study by involving traders from

various traditional markets in different regions to obtain more representative results. Future research could also add other variables that could potentially influence financial literacy, such as education level, business experience, income, use of financial technology, access to financial institutions, and other demographic factors. Furthermore, future research could use a longitudinal or mixed methods approach to gain a more comprehensive understanding of the dynamics of traders' financial literacy.

References

- Abdallah, W., Harraf, A., Ghura, H., & Abrar, M. (2025). Financial literacy and small and medium enterprises performance: the moderating role of financial access. *Journal of Financial Reporting and Accounting*, 23(4), 1345–1364. <https://doi.org/10.1108/JFRA-06-2024-0337>
- Akhtar, M., & Malik, M. U. (2023). Personality traits and investor risk behavior: moderating role of financial literacy. *Managerial Finance*, 49(5), 884–905. <https://doi.org/10.1108/MF-08-2021-0387>
- Amadasun, D. O. E., & Mutezo, A. T. (2022). Influence of access to finance on the competitive growth of SMEs in Lesotho. *Journal of Innovation and Entrepreneurship*, 11(1), 56. <https://doi.org/10.1186/s13731-022-00244-1>
- Babajide, A., Osabuohien, E., Tunji-Olayeni, P., Falola, H., Amodu, L., Olokoyo, F., Adegboye, F., & Ehikioya, B. (2023). Financial literacy, financial capabilities, and sustainable business model practice among small business owners in Nigeria. *Journal of Sustainable Finance & Investment*, 13(4), 1670–1692. <https://doi.org/10.1080/20430795.2021.1962663>
- Banthia, D., & Dey, S. K. (2022). Impact of Financial Knowledge, Financial Attitude and Financial Behaviour on Financial Literacy: Structural Equation Modeling Approach. *Universal Journal of Accounting and Finance*, 10(1), 327–337. <https://doi.org/10.13189/ujaf.2022.100133>
- Baptista, S. M. J., & Dewi, A. S. (2021). The Influence of Financial Attitude, Financial Literacy, and Locus of Control on Financial Management Behavior (Study Case Working-Age of Semarang). *International Journal of Social Science and Business*, 5(1). <https://doi.org/10.23887/ijssb.v5i1.31407>
- Bawono, I., Maulina, E., Rizal, M., & Purnomo, M. (2022). The Role of Knowledge Management Capability, Financial Literacy, and Problem-Solving Skills on Organizational Performance for SMEs. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.930742>
- Boudreaux, C., Clarke, G., & Jha, A. (2022). Social capital and small informal business productivity: the mediating roles of financing and customer relationships. *Small Business Economics*, 59(3), 955–976. <https://doi.org/10.1007/s11187-021-00560-y>
- Chaulagain, R. P. (2015). Contribution of Financial Literacy to Behavior. *Journal of Economics and Behavioral Studies*, 7(6(J)), 61–71. [https://doi.org/10.22610/jeps.v7i6\(J\).618](https://doi.org/10.22610/jeps.v7i6(J).618)
- Currie, W. L., Seddon, J. J. M., & Van Vliet, B. (2022). From decision optimization to satisficing: Regulation of automated trading in the US financial markets. *Information & Management*, 59(8), 103721. <https://doi.org/10.1016/j.im.2022.103721>
- Dewi, V., Febrian, E., Effendi, N., & Anwar, M. (2020). Financial Literacy among the Millennial Generation: Relationships between Knowledge, Skills, Attitude, and Behavior. *Australasian Business, Accounting & Finance Journal*, 14(4), 24–37.

- <https://doi.org/10.14453/aabfj.v14i4.3>
- Firli, A. (2017). Factors that Influence Financial Literacy: A Conceptual Framework. *IOP Conference Series: Materials Science and Engineering*, 180, 012254. <https://doi.org/10.1088/1757-899X/180/1/012254>
- Kaiser, T., & Menkhoff, L. (2017). Does Financial Education Impact Financial Literacy and Financial Behavior, and If So, When? *The World Bank Economic Review*, 31(3), 611–630. <https://doi.org/10.1093/wber/lhx018>
- Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review*, 23(1), 169–183. <https://doi.org/10.1016/j.bir.2022.09.012>
- Kurniasari, F., Lestari, E. D., & Tannady, H. (2023). Pursuing Long-Term Business Performance: Investigating the Effects of Financial and Technological Factors on Digital Adoption to Leverage SME Performance and Business Sustainability—Evidence from Indonesian SMEs in the Traditional Market. *Sustainability*, 15(16), 12668. <https://doi.org/10.3390/su151612668>
- Mahya, Y., Dewi, N., & Hasbu, W. Y. (2025). The Influence of Business Owner Characteristics, Financial Literacy, and Financial Inclusion on Business Capital Choice Decision and its Implications for Business Growth. *Eduvest – Journal of Universal Studies*, 5(7), 9395–9412. <https://eduvest.greenvest.co.id/index.php/edv/article/view/51816>
- Merter, A. K., & Balcioglu, Y. S. (2025). Financial literacy and decision-making: The impact of knowledge gaps on financial outcomes. *Borsa Istanbul Review*, 25, 101–108. <https://doi.org/10.1016/j.bir.2025.07.010>
- Morris, T., Maillet, S., & Koffi, V. (2022). Financial knowledge, financial confidence and learning capacity on financial behavior: a Canadian study. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2021.1996919>
- Nkwinika, E., & Akinola, S. (2023). The importance of financial management in small and medium-sized enterprises (SMEs): an analysis of challenges and best practices. *Technology Audit and Production Reserves*, 5(4(73)), 12–20. <https://doi.org/10.15587/2706-5448.2023.285749>
- OECD. (2016). *G20/OECD INFE Core competencies framework on financial literacy for adults*. Gpfi.Org. <https://www.gpfi.org/sites/default/files/documents/Core-Competencies-Framework-Adults.pdf>
- OJK. (2021). *Strategi Nasional Literasi Keuangan Indonesia (SNLKI) 2021 - 2025. Otoritas Jasa Keuangan*. Ojk.Go.Id. <https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Strategi-Nasional-Literasi-Kuangan-Indonesia-2021-2025.aspx>
- Polisetty, A., Lalitha, N., & Singu, H. B. (2021). Factors Affecting Financial Literacy among Budding Entrepreneurs. *Universal Journal of Accounting and Finance*, 9(5), 1085–1092. <https://doi.org/10.13189/ujaf.2021.090518>
- Remund, D. L. (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*, 44(2), 276–295. <https://doi.org/10.1111/j.1745-6606.2010.01169.x>
- Senyo, P. K., Gozman, D., Karanasios, S., Dacre, N., & Baba, M. (2023). Moving away from trading on the margins: Economic empowerment of informal businesses through FinTech. *Information Systems Journal*, 33(1), 154–184. <https://doi.org/10.1111/isj.12403>
- Shi, W., Ali, M., & Leong, C.-M. (2025). Dynamics of personal financial management: a

- bibliometric and systematic review on financial literacy, financial capability and financial behavior. *International Journal of Bank Marketing*, 43(1), 125–165. <https://doi.org/10.1108/IJBM-06-2023-0359>
- Suleiman, A., Dewaranu, T., & Anjani, N. H. (2022). *Menciptakan Konsumen yang Terinformasi: Melacak Program-Program Literasi Keuangan di Indonesia* (p. 52). Center for Indonesian Policy Studies (CIPS). <https://repository.cips-indonesia.org/media/publications/359634-menciptakan-konsumen-yang-terinformasi-m-5209e1ca.pdf>
- Swiecka, B., Grzesiuk, A., Korczak, D., & Kaniewska, O. W. (2019). Financial Literacy and Financial Education. Theory and Survey. In *Financial Literacy and Financial Education* (pp. V–VI). De Gruyter. <https://doi.org/10.1515/9783110636956-201>
- Talip, S. N. S. H., & Wasiuzzaman, S. (2024). Influence of human capital and social capital on MSME access to finance: assessing the mediating role of financial literacy. *International Journal of Bank Marketing*, 42(3), 458–485. <https://doi.org/10.1108/IJBM-04-2023-0214>
- Yuliani, Y. (2019). The Effect of Financial Knowledge on Financial Literacy with Mediated by Financial Behavior in Society of Palembang City South Sumatera. *Mix Jurnal Ilmiah Manajemen*, 9(3), 421. <https://doi.org/10.22441/mix.2019.v9i3.003>