

Financial Literacy And Its Effect On Financial Decision-Making In Msmes: An Empirical Study

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ABSTRACT

Financial literacy has proven itself to be an important determinant in the process of financial decision-making, especially in the case of Micro, Small and Medium Enterprises (MSMEs). In this research, we seek to understand how financial literacy affects financial decision-making through access to finance. Additionally, we look at various aspects of financial literacy, such as financial knowledge, financial attitude, and financial behavior. A quantitative research method was chosen for this study, and the primary data were gathered from 384 MSMEs through a structured questionnaire survey. The collected data have been analyzed with the use of statistical methods such as reliability test, validity test, correlation test, and mediation test using PROCESS. This study uses SEM and AMOS for analysis. The findings show that financial knowledge, financial attitude, and financial behavior positively affect financial decision-making, and moreover, the financial literacy variable positively affects financial decision-making. The partial mediation test shows that finance is an important mediator variable in the relationship between financial literacy and financial decision-making. The results show that people who have greater financial literacy can easily gain access to financial resources and make more financial decisions. This research adds value to previous studies by including access to finances as a mediator in the model. Implications for practice include the designing of suitable financial education programs for MSME respondents. Increased financial literacy and improved access to financial means will result in improved financial decision-making skills.

Keywords: Financial literacy, financial attitude, financial knowledge, financial decision making, Access to finance.

INTRODUCTION:

Financial Literacy represents financial knowledge resulting from decision making. One will note that the definition of FL entails two aspects, which include financial knowledge as a result of financial educational initiatives, and the ability to apply the financial knowledge for making wise decisions. Financial literacy defined as an individual's ability to analyze economic information and make sound financial decisions. However, in case an individual has financial knowledge but lacks the ability to apply such knowledge effectively in making financial decisions (Ouachani, 2019). Small and unlisted enterprises, especially in developing economies, encounter various difficulties in securing ideal loans from banks as a result of the asymmetric information associated with their small scale and relative youthfulness. The financial constraints faced by small enterprises are particular to such enterprises in that not only do they inhibit access to formal loan finance, but they also affect the enterprise's access to equity financing, such as IPOs, venture capital, and angel investments. As such, studies investigating the issue of external financing strategies pursued by small enterprises tend to

examine issues of formal versus informal finance, but with very little being done about the cost and benefits analysis of these sources of finance (Nguyen, 2021). Informal finance, defined as small, unsecured and short term finance accessed from private money lenders, families, friends or other enterprises, has been positively linked to firm growth and performance. Even as the importance of informal finance is known, little is still known about the determinants of small firms' financing choices.

There are four major elements that should be considered within the sphere of financial education: savings, household budgeting, credits, and insurance. These are key elements of financial education for proper evaluation and management of people's financial behavior (González-prida et al., 2025). The governmental, nongovernmental institutions and nonprofit organizations have proven their great interest in the influence of financial education on the incomes of particular individuals and on the overall country. It should be stressed that financial literacy plays an extremely crucial role in terms of developing the necessary competences needed for the process of making proper decisions (Muñoz-c et al., 2021). With the help of proper financial education, once the certain level of financial literacy is achieved among people, the government promotes individual development via various financial instruments and products.

Financial literacy entails the understanding and skills required to interpret financial data competently. Financial literacy and financial well-being are highly correlated, particularly given today's intricate financial world that requires maneuvering different retirement alternatives and financial products (Yavuz Selim Balcioglu Merter, 2025). The development of theories on financial decision-making shows that financial choices are not only influenced by factual knowledge but also by perceptions, thereby underscoring the importance of subjective financial literacy. Studies show that subjective financial literacy may be more important than objective financial literacy, with any gap between both translating into bad financial decisions, especially when subjective financial literacy tends to be overconfident.

The Micro, Small, and Medium Enterprises (MSMEs) play an essential part in economic development and are considered the "engine of growth" in developing countries such as India. As of September 2025, there were more than 6.82 crore enterprises employing close to 30 crore workers, which contributed around 30% of the country's GDP and 46% of exports. MSMEs create substantial employment avenues for disadvantaged sections of society, which helps minimize poverty levels and regional imbalances. In addition, the MSME sector serves as an important component in industrializing rural regions and functioning as ancillary units for major corporations (Thakur, 2026).

MSMEs act as intermediaries between small firms and large and very advanced firms and act as the stage for development. The MSMEs are significant players in terms of being facilitators of development by creating the input facilities/services for industries and also supplying direct facilities/services to consumers. Research studies indicate that the attitude, education, and skills of the owner/manager significantly influence the growth of the small firm and would reflect in the strategies that are adopted by the business and its operations in terms of growth of the business in four interdependent dimensions; namely, financial, strategic, structural, and organizational (Ogheneogaga & Isaac, 2021). They can be seen from the model of business dynamics by Wickham. This is a situation whereby the business owner must take into consideration all of them while preparing the business for growth. Failure to factor any of

these elements may result in business failure and other problems, thus setting up the relationship between them using a conceptual relationship model, where "Micro and Small Enterprises (MSEs) Growth" becomes the dependent variable, while "Financial Literacy" becomes the independent variable. She believed that there are four proxies to measure financial literacy.

The remaining sections are organized as follows: Section 2 provides an overview of existing work on this study. Section 3 elaborates on the research methodology. Section 4 details the data analysis and discussion also presented. In the end, Section 5 provides a conclusion.

LITERATURE REVIEW

(A et al., 2024) revealed that financial planning and decision-making processes play an important role in

predicting effective financial performance within MSMEs, which helps them achieve sustainability in the market environment. This paper also recognized the importance of MSMEs within the GDP contribution and employment generation in Latin America, explaining that there is less representation of MSMEs in the current literature since most studies consider large corporations. The quantitative and non-experimental research includes 308 MSMEs and discovers that the firms founded for at least seven years are significantly affected by financial planning, as it improves the decision-making process and financial performance.

(Jathanna et al., 2025) discussed that MSMEs played a vital role in economic development; however, the financial decision-making process in MSMEs is not always consistent with the established principles of finance. This study aimed to understand the emotional determinants that guide the financial decision-making of MSME entrepreneurs and the extent of emotional influence on their decisions. Theories such as the Prospect Theory and Affect Heuristic explain the emotional influences that guide financial decision-making. Using a survey conducted among 87 MSME entrepreneurs, it was found that fear, stress, and optimism significantly impact financial decisions. Additionally, cognitive biases, such as loss aversion and overconfidence, affect the decision-making process of entrepreneurs. The research proposed behavioral interventions that can help entrepreneurs make sound financial decisions. A study by (Pertiwi & Hana, 2025) demonstrated that Data-Driven Decision-Making (DDDM) can improve the financial performance and sustainability of Micro, Small, and Medium Enterprises (MSMEs). However, in many developing countries, where problems with informal practice, illiteracy rates, and the use of modern digital tools may occur, DDDM has proven to be very beneficial. This paper will examine how free digital platforms – Microsoft Excel, Google Data Studio, and Canva Analytics can contribute to effective financial planning and efficient operations in MSMEs. Through the analysis of the simulated operations, it becomes evident that through dashboards, important financial indicators can be revealed, such as the highest net cash flow of IDR 2,150,000 during Week 3, as well as a successful digital marketing campaign, which has provided a 220% ROI. As the operational expenses account

for 65% of all the costs, improvements are possible.

A study by (Dewi et al., 2020) examined the level of financial literacy among millennials, looking at the connection between the participants' financial literacy, attitude, skill, and behavior. The participants were divided into three categories based on the levels of their financial literacy, attitudes, skills, and behaviors using multiple choice questions. It was

established that 70.6% of the participants have a fair attitude toward finances, 66.5% have a fair skill towards finances, and 72.2% have a fair financial behavior. There was a significant correlation between financial attitude and financial management behavior and financial skills and financial management behavior but not between financial literacy and financial management behavior.

(Banthia & Dey, 2022) illustrated that financial literacy has gained global significance, especially in India, due to constraints like low literacy rate, poverty, and socio-economic inequality. This study focused on the association between financial literacy, financial knowledge, financial attitude, and financial behavior in Odisha. It was found that there is a negative influence of financial behavior on financial literacy. On the other hand, financial knowledge had a positive influence on financial behavior and attitude, but financial attitude and financial behavior were negatively associated with each other.

A study by (Janea, 2023) was to find empirical proof about the impact of financial inclusion and fintech on behavioral finance in MSMEs. In this study, a quantitative method was applied with positivism as the research approach. The population of this research was MSMEs in Indonesia. The samples in this research consist of 205 respondents (the owners of MSMEs). The sampling process in this research is performed randomly. The data are collected using a questionnaire distributed manually and through Google Forms. Measurement is done using 5-point Likert scale. Data analysis in this research is done using PLS software based on SEM model. The results of this study indicated that financial inclusion and financial technology (fintech) have a direct effect on the behavioral finance of MSMEs. Fintech serves as a mediator to strengthen the effect of financial inclusion on behavioral finance in MSMEs.

(Azizah et al., 2024) explored the determinants of financial behavior in micro, small, and medium-sized enterprises (MSMEs). This is done by focusing on three areas, namely, financial inclusion, financial literacy, and financial technology, under the Theory of Planned Behavior. Using a sample size of 142 out of 89,553 respondents, the qualitative and quantitative analysis shows that financial inclusion increases access to credit and financial services, thereby improving financial behavior. Financial literacy leads to better management, leading to increased profitability and sustainability. Financial technology increases resource access and efficiency.

The MSME actors in Indonesia are about 64.19 million, providing a contribution of

61.07 percent to the GDP and 97 percent of the total employment (Maulida & Nurafina, 2024). The research brings into light that although the number of MSMEs contributes to the economy, there are some obstacles that are still existing. According to the chairman of Indonesian Micro and Small Entrepreneurs Association, one of the obstacles is the poor level of financial literacy which hinders the development of the MSMEs. Therefore, the objective of the research is to examine the financial behavior influencing the financial literacy of MSME actors.

A study by (Supramono et al., 2025) examined the impacts of dynamic capability and financial behavior on the recovery of MSMEs' performance post-COVID-19 and its impact on business sustainability. Primary data collected from 450 food and beverage businesses in MSMEs operating in Central Java, Indonesia, is examined using PLS-SEM. The results reveal that dynamic capability and financial behavior are essential for enhancing the speed of recovery of MSMEs. These variables, together with speed

of recovery, have significant implications for MSMEs' business sustainability

(Jathanna et al., 2025) explored the influence of emotions such as fear, optimism, stress, and social elements on the financial decision-making process of MSME entrepreneurs. Using the theories such as Prospect Theory and Affect Heuristic, the paper utilizes the survey data collected from 87 MSME entrepreneurs and statistical techniques such as ANOVA to determine the influence of emotions on investment decision and risk perception. It was found that emotions have a significant influence on financial decision-making, especially stress, fear, and optimism. Loss aversion and overconfidence bias behaviors were established to have an effect on risk-taking behavior. Intervention measures such as emotional intelligence and mentoring were associated with good financial performance.

A study by (Rajamani et al., 2024) demonstrated that Access to finance played an important part in entrepreneurship development and economic growth of any nation. It helped in the initiation of new ventures. Availability of finance ensures the sustainability of small and medium enterprises (SMEs). The objective of this paper was to find out the problems associated with the availability of finance among SMEs and its effect on the business activities of the enterprise. This survey was carried out in 400 SMEs operating in different industrial clusters in India. Quota sampling technique was adopted for the selection of sample units. The conceptual model was constructed and analyzed using the structural equation model (SEM). The study revealed that the factors such as firm attributes, sources of finance, and life cycle of SMEs have a significantly positive effect on the availability of finance to them, while the financial barriers affect negatively the growth of SMEs.

(Ikhida et al., 2021) examined the effect of access to finance on the operations and growth of MSMEs in the services sector of Nigeria based on data obtained from the World Bank Enterprise Surveys conducted in 2014. Using the ordinary least square method of regression analysis, the study revealed that 77.56 percent of the firms regard constrained access to funds as one of the greatest challenges they face, and there was a negative correlation between access to funds and employment creation. This paper recommended that the government helps provide cheaper credit facilities to MSMEs to solve the problem of unemployment.

HYPOTHESIS DEVELOPMENT

Financial Knowledge influences Financial Decision-Making

(Raut, 2020) focused on how past behavior and financial literacy of individual investors affect their decision making process through the theory of planned behavior. Self-administered questionnaire was used in this study among individual investors from four Indian states. The results indicated that whereas past behavior had no direct impact on the intention to invest, there was an indirect effect through the attitudes of the individual investor. The model explained 36% of variance in investment intention and emphasized the significance of subjective norms due to

social pressure. This research showed that improved financial literacy can reduce this social pressure and lead to rational investments, which is of utmost importance to governments and policymakers.

(Mubaraq et al., 2021) determined the purpose of this research was to empirically prove the influence of financial knowledge and risk tolerance toward the decision of investment. This kind of research can be categorized as associated research that employs survey techniques as its measurement method. In terms of variable measurement, it uses a Likert scale of 1 for

'strongly disagree' and scale of 5 for 'strongly agree'. The target population in this research are investors who have participated in Capital Market School at the Indonesia Stock Exchange, Representative Office of West Nusa Tenggara and have Single Investor Identification (SID). Sampling technique used in this research is the Slovin formula with 110 respondents. Method of data analysis in this research employs Multiple Linear Regression analysis. Result of this research shows that there is a significant influence of financial knowledge and risk tolerance toward the decision of investment. Recommendation of this research toward investors is to focus on their understanding in the form of financial knowledge and identify their risk tolerance in investment decisions in capital markets.

By above studies, financial knowledge influences financial decision making is considered.

Financial Attitude influences Financial Decision-Making

(Hidayati et al., 2021) explored the effect of Financial Attitude and Financial Knowledge on Company Performance, where Financial Decision is the intervening variable in Small Medium Enterprises (SMEs) owners in Lombok Island. This research intended to deepen the knowledge of behavioral finance theories on financial decision making and its effect on company performance. Additionally, this study intends to assist policymakers at the NTB Provincial Government on how to develop SMEs in Lombok Island. Using quantitative methodology, 35 SMEs within the pottery industry were chosen using judgmental sampling, collecting data using questionnaires and analysing the results through GSCA statistical tools. In the analysis, Financial Attitude and Financial Knowledge had positive effects on Financial Decision-making. However, Financial Decisions did not act as mediators between Financial Attitude and Financial Knowledge and Company Performance; hence, a negative effect was evident on company performance. Almost all respondents were productive aged males with high school level education and more than ten years in business.

(Hutasoit et al., 2025) illustrated that in recent times, financial problems faced by young generations have been affected by various technological and consumerist influences. In this regard, the current paper investigates the influence of attitude on the relationship between financial literacy and decision making in the context of consumerism. Based on the quantitative approach, the research involved the use of PLS-SEM in analysing the data collected from 110 participants. It was found out that financial literacy positively affects attitude as well as

decision making, where the latter is mediated by attitude. Although the moderating effect of consumerism is insignificant, it is highly important for financial behavior.

By above studies, Financial Attitude influences Financial Decision-Making is considered.

Financial Behavior influences Financial Decision-Making

(Hala et al., 2020) investigated the behavior of financial decision-making of the investor between property investment and financial assets based on financial behavior theory and prospect theory. It employed 220 subjects who were obtained from the State Assets and Auction Services Office, Makassar, Indonesia, using a questionnaire with 23 questions. The findings revealed that loss and regret aversion played a significant role in making investment decisions, but financial literacy was not. Furthermore, it showed that decision-making concerning financial assets was relatively easier than deciding on real assets

(Eko, 2022) demonstrated that small, medium, and micro enterprises (MSMEs) greatly add to GDP but have problems with financing because of being perceived as risky. This study addresses how financial literacy and attitudes affect investments by MSMEs in Malang, a city in East Java, Indonesia, based on a sample size of 100 respondents through structural equation modeling (SEM), which is the main approach employed in this study. The findings indicated that financial literacy and attitudes affect investments, where financial behavior moderates the relationship between financial literacy and investment, but does not moderate that between attitude and investment. Financial literacy and resource management are very important for MSME managers, although financial behavior does not moderate the attitude-investment relationship.

By above studies, financial behavior influences financial decision making is considered.

Financial Literacy influences Access to Finance

Financial literacy is an important aspect when it comes to sustainability for SMEs, especially in developing countries, whereby most SMEs close down within three years because of financial management issues. The present research seeks to analyze the effect of financial literacy on risk taking behavior, where access to finance will be used as a mediator. Questionnaires were distributed to a sample size of 432 SME managers/owners and analysis showed that there was partial mediation of access to finance in the association between financial literacy and risk taking behavior. Both financial literacy and access to finance positively affect SMEs risk-taking behavior (Addo et al., 2022).

(Indra et al., 2025) explored the effect of financial literacy and availability of financing on the financial performance of MSMEs through a review of 30 related scholarly publications in the period 2021-2025. According to the findings, financial literacy positively influenced the financial decisions and performances of MSMEs, whereas financing is significant in MSMEs' growth although it is constrained by various structural factors. Financial management acted as an intermediary variable among

financial literacy, financing, and performance, with financial technology acting as a moderator in that relation. This study identified some research limitations such as lack of longitudinal research designs and sustainable performance measures.

By above studies, financial literacy positively influences Access to finance is considered.

Access to Finance mediates the relationship between Financial Literacy and Financial Decision-Making

A study by (Setiyawan & Tambunan, 2026) demonstrated that there are difficulties faced by Micro, Small, and Medium Enterprises (MSMEs) in accessing the formal financial system. This research seeks to examine the impacts of fintech and financial literacy on the financial performance of MSMEs where financial inclusion serves as the mediator variable. Based on the findings obtained through quantitative research conducted on 160 MSME owners who use digital financial services, it was discovered that financial literacy improves the level of financial inclusion and financial performance. In addition, financial inclusion mediates between financial literacy and financial performance, whereas fintech does not impact the financial performance of MSMEs.

A study by (Ramadani, 2025) illustrated that Micro Small and Medium Enterprises (MSMEs) contribute greatly to the economic development of Indonesia, but their sustainability is hindered by limited access to finances and poor financial literacy among others. This research aims to analyze the role of access to finances in moderating the effects of financial literacy and financial technology on the sustainability of MSMEs. Based on the quantitative approach with data collected from 150 MSMEs respondents in Batam City analyzed using Structural Equation Modeling, it was found that the use of financial technology plays an important role in increasing MSMEs sustainability, either directly or indirectly through access to finance. However, financial literacy has no effect on sustainability.

RESEARCH GAP

From the literature that was evaluated above, it can be clearly seen that extensive research has been done with regard to financial literacy, financial behavior, financial inclusion, and their effects on MSMEs' performance and sustainability. But there has been a distinct lack of research with regard to integration of these aspects into one research framework, taking into account the financial decision-making process. Majority of the research studies have concentrated either on financial performance or behavioral aspects or financing alone, whereas very little emphasis has been paid to the impact of financial literacy in the everyday decision making of MSMEs. In addition, most of these studies have only been done in specific geographical areas, for example, in Indian MSME environment. Finally, the impact of psychological and emotional aspects along with financial literacy in the decision-making process has not been well researched.

METHODOLOGY

Research design

The study employed a structured questionnaire to collect data and used quantitative empirical study to examined the relationship between financial literacy and its effect on financial decision-making in MSMEs. The data for this research was gathered using a structured questionnaire survey. Data has been gathered with the help of a standardised questionnaire of 5 Likert scale (strongly disagree to strongly agree) where respondents will be asked to share their opinions regarding various research questions under study. Questionnaire has a set of both open ended and closed ended questions. The variables use in this study are financial literacy, financial knowledge, financial attitudes, financial Awareness, financial Behaviour and financial decision making, and it include the demographic variables. For analysis, this study uses SEM AND AMOS.

Research objectives

To analyze the effect of financial knowledge on financial decision-making among MSMEs.

To examine the influence of financial attitude on financial decision-making among MSMEs.

To assess the impact of financial behavior on financial decision-making among MSMEs.

To investigate the mediating role of access to finance in the relationship between financial literacy and financial decision-making among MSMEs

Research hypothesis

H1: Financial Knowledge positively influences Financial Decision-Making.

H2: Financial Attitude positively influences Financial Decision-Making.

H3: Financial Behavior positively influences Financial Decision-Making.

H4: Access to Finance mediates the relationship between Financial Literacy and Financial Decision-Making.

Conceptual framework

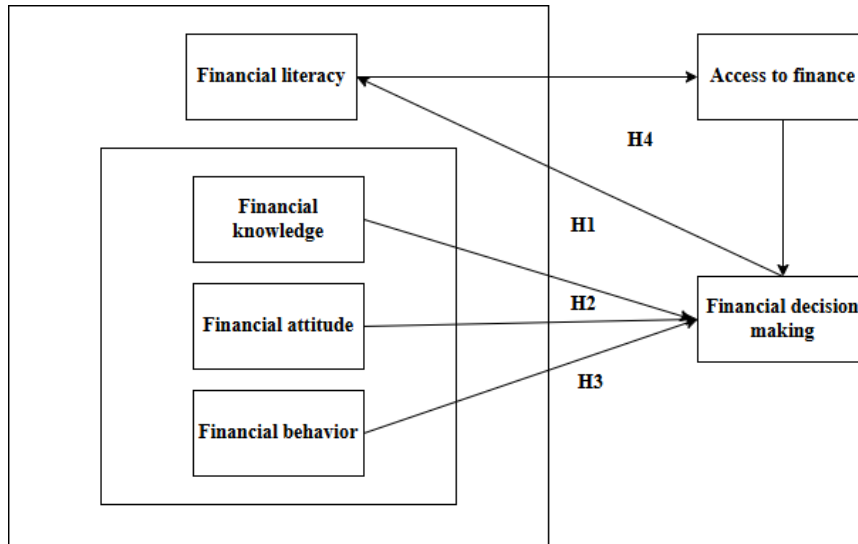


Figure 1 Conceptual framework

Sample selection and Data collection

Micro, Small, and Medium-Sized Enterprises (MSMEs) operating in the designated study area are the study's primary emphasis. MSME owners or managers who are directly involved in financial decision-making make up the respondents, and a quantitative research approach is used. Respondents with sufficient understanding of financial practices are chosen using a non-probability sampling technique, such as convenience or purposive sampling. The sample size, 384 MSMEs and ensures adequate representation across several sectors including manufacturing, trade, and services, is established based on statistical requirements and feasibility. The study uses primary data that was gathered using a structured questionnaire that was created using the conceptual model and prior research. The questionnaire has sections that use a 5-point Likert scale to measure financial decision-making, access to financing, and financial literacy (financial knowledge, attitude, and behaviour). To

guarantee a greater response rate, data is gathered using both online (Google Forms) and offline survey techniques. To look at the links between the variables, the gathered data is then coded and examined using statistical programs like SPSS and SEM.

Measures

Data has been gathered with the help of a structured questionnaire. Questionnaire has been prepared using 5 Likert scale (Strongly disagree to Strongly agree) where respondents will be asked to share their opinions regarding various research questions under study. Questionnaire has a set of both open ended and closed ended questions. Questions have been carefully crafted so as to gather meaningful information with respect to identified research

variables. The details of the variables and the corresponding measurement items used for the analysis are presented below.

Table 1 Measures

S No.	Variables
1	Financial Literacy
2	Financial Knowledge
3	Access to finance
4	Financial <u>attitude</u>
5	Financial <u>behavior</u>
6	Financial <u>decision making</u>

Financial literacy: Financial literacy is defined as the knowledge of the worth of money and how to make the best out of the use of such money. Various organizations and scholars have proposed various definitions of

financial literacy, yet the essence remains the same: financial literacy as being able to comprehend the consequences of interest rates, inflation, risk, and diversification. This definition helps us gain a tangible definition that makes it easier for researchers to correlate financial literacy with the demography and socio-economic status of the nation (Kadoya et al., 2020).

Financial knowledge: Financial knowledge means theoretical knowledge of finance related matters including concepts like interest rates and investments. On the other hand, financial literacy implies knowledge of finance and application of this knowledge in practical situations like personal financial management. Therefore, financial knowledge constitutes the theoretical aspect, whereas financial literacy is practical knowledge of how to act in real situations. This variable include 5 items.(Nogueira & Almeida, 2025).

Financial behavior: Financial behavior is a critical element in everyone’s life. In fact, each person needs to have adequate financial literacy and competence to be able to make sound decisions about their finances, whether in the short or long run. These could include making financial transactions, taking loans, saving money, investing, and even retiring. This variable includes 5 items. (Morris et al., 2022).

Access to Finance: Access to financing for MSMEs is the ability of MSMEs to obtain a variety of financial services such as loans, payments, insurance, savings, and deposits. It is frequently referred to as the lifeblood of a business, where access will determine whether the MSME succeeds, survives, or grows. This variable includes 6 items. (Rajamani et al., 2024).

Financial attitude: Financial attitudes encompass individuals' beliefs and behaviors regarding personal and business finances, influencing their money management, planning, risk-taking, and investing. Positive attitudes correlate with confidence, proactive financial planning, and willingness to undertake calculated risks, while negative attitudes can lead to overspending and poor financial oversight. This variables includes 6 items. (Widjayanti & Adawiyah, 2025).

Financial decision making: The financial decisions made by Micro, Small and Medium Enterprises (MSMEs) owners/managers are the core decision-making process that entails choosing, managing, and investing in financial resources under extremely uncertain conditions and with limited financial resources in order to sustain the MSME and ensure its continued existence. This variable includes 6 items. (Muh. Rezky Naim & Syamsu Alam, 2025).

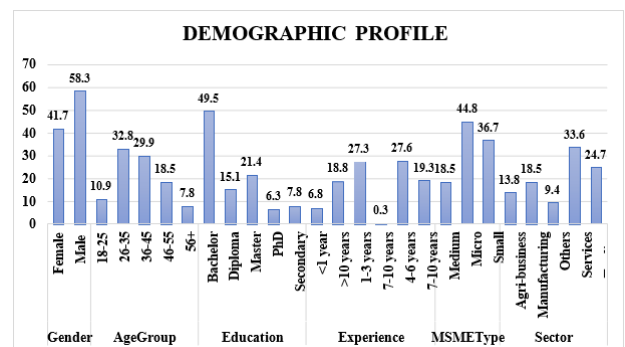
RESULTS AND DISCUSSION

Results

This chapter highlights the empirical results obtained from a research study exploring the effect of financial literacy on the financial decision-making of MSMEs using primary data collected from 384 participants. The findings are presented in terms of the demographic characteristics of the respondents, the reliability and validity test of the measurement model, and the use of inferential statistics to identify the relationship between independent variables

such as financial knowledge, attitude, behavior, and access to finance

Variables	Frequency	Percent	
Gender	Female	160	41.7
	Male	224	58.3
AgeGroup	18-25	42	10.9
	26-35	126	32.8
	36-45	115	29.9
	46-55	71	18.5
	56+	30	7.8
Education	Bachelor	190	49.5
	Diploma	58	15.1
	Master	82	21.4
	PhD	24	6.3
	Secondary	30	7.8
Experience	<1 year	26	6.8
	>10 years	72	18.8
	1-3 years	105	27.3
	7-10 years	1	0.3
	4-6 years	106	27.6
MSME Type	Medium	71	18.5
	Micro	172	44.8
	Small	141	36.7
Sector	Agri-business	53	13.8
	Manufacturing	71	18.5
	Others	36	9.4
	Services	129	33.6
	Trading	95	24.7
Total	384	100	



The data in the table 1 shows the demographic and entrepreneurial features of the respondents through frequency distribution. From the total number of respondents being 384, there is an indication that more males (224) than females (160) have taken part in the study. With regard to age distribution, most of the respondents are aged between 26 and 35 years (126) and aged between 36 and 45 years (115). Other respondents are equally distributed among the age bracket of 46 to 55 years (71), age bracket of 18 to 25 years (42), and the age bracket of 56 years and above (30). As far as educational background is concerned, the number of people who obtained a Bachelor’s degree (190) is the highest in the sample. Other levels of education are represented as follows: Master’s degree (82); Diploma (58); Secondary (30); PhD (24). Thus, it should be noted that the sample includes mostly educated persons with an above- average educational qualification, especially with undergraduate qualifications. Regarding the work experience, the largest groups are formed by respondents who have between 4-6 years of experience (106) and 1-3 years of experience (105), thus indicating that there are quite a lot of people in the sample with some experience in their chosen

profession. The following categories include 74 respondents with 7-10 years of work experience and 72 people with more than 10 years of experience. Moreover, there are 26 respondents with less than 1 year of experience. One respondent belongs to another group of 7-10 years of experience. With regard to the classification of MSMEs, most of the respondents come from Micro enterprises (172), while a smaller proportion come from small enterprises (141) and medium enterprises (71). This is in line with the fact that there is a preponderance of micro-level MSMEs in the sample. On the other hand, the

largest proportion of the respondents come from the Services sector (129), while the remaining proportions come from Trading (95), Manufacturing (71), Agri-business (53) and Others (36). On balance, the data show that the respondents in the sample comprise mostly male respondents, aged 26 to 45 years old, with a Bachelor's degree, medium experience, and predominantly from micro enterprises and services sectors

Measurement model

Figure 2 Measurement model

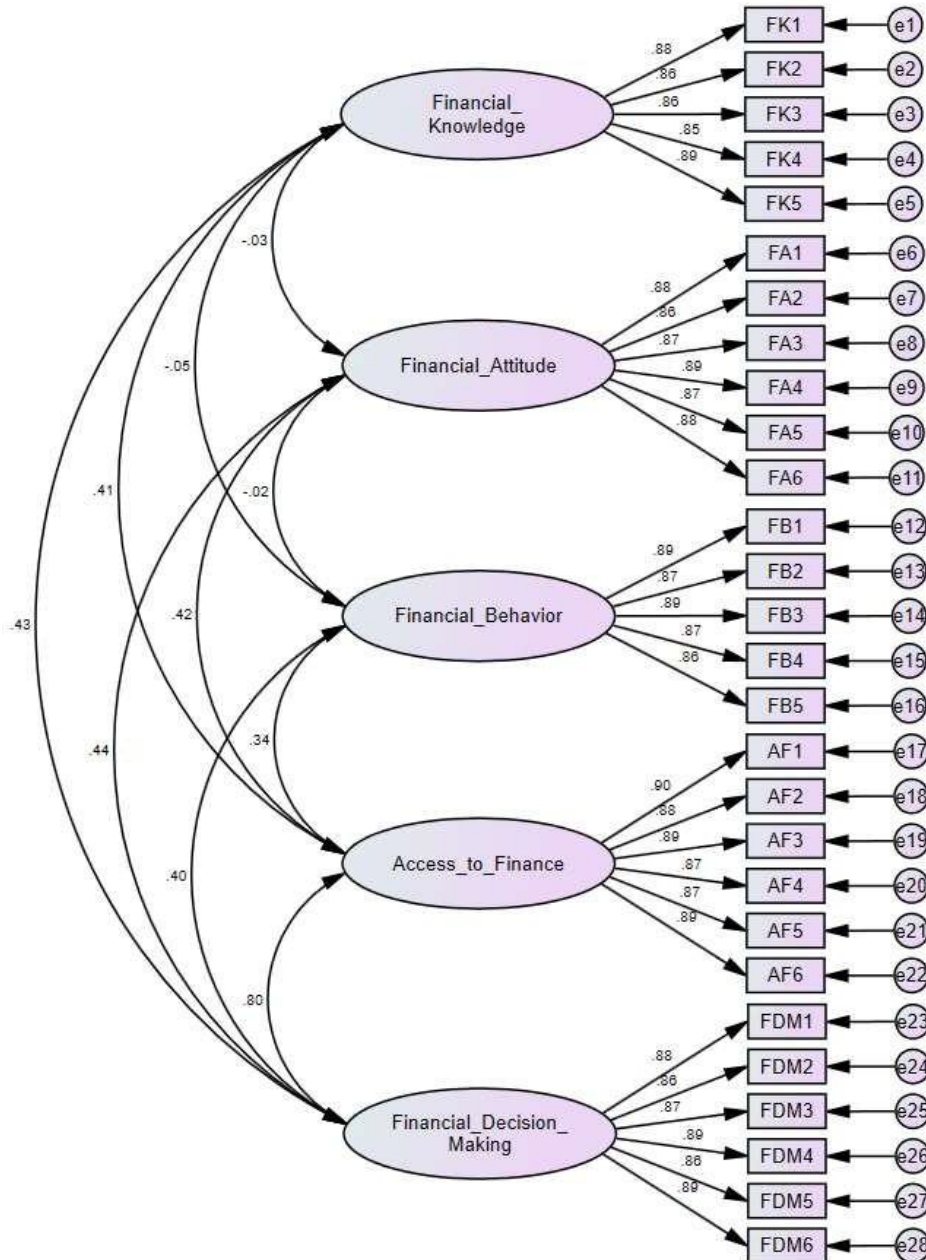


Table 3 Factors Loadings with Internal Consistency Reliability and Convergent Validity

	Relationship path	Estimate	Cronbach's alpha	Composite reliability	Average variance extracted
FK1	<--- Financial Knowledge	0.875	0.937	0.81	0.865
FK2	<--- Financial Knowledge	0.859			
FK3	<--- Financial Knowledge	0.858			
FK4	<--- Financial Knowledge	0.846			
FK5	<--- Financial Knowledge	0.889			
FA1	<--- Financial Attitude	0.878	0.951	0.862	0.875
FA2	<--- Financial Attitude	0.862			
FA3	<--- Financial Attitude	0.87			
FA4	<--- Financial Attitude	0.894			
FA5	<--- Financial Attitude	0.872			
FA6	<--- Financial Attitude	0.876			
FB1	<--- Financial Behavior	0.893	0.943	0.814	0.878
FB2	<--- Financial Behavior	0.868			
FB3	<--- Financial Behavior	0.892			
FB4	<--- Financial Behavior	0.875			
FB5	<--- Financial Behavior	0.865			
AF1	<--- Access to Finance	0.905	0.955	0.865	0.884
AF2	<--- Access to Finance	0.878			
AF3	<--- Access to Finance	0.885			
AF4	<--- Access to Finance	0.872			
AF5	<--- Access to Finance	0.875			
AF6	<--- Access to Finance	0.891			
FDM1	<--- Financial Decision Making	0.878	0.951	0.862	0.875
FDM2	<--- Financial Decision Making	0.86			
FDM3	<--- Financial Decision Making	0.871			
FDM4	<--- Financial Decision Making	0.889			
FDM5	<--- Financial Decision Making	0.862			
FDM6	<--- Financial Decision Making	0.891			

The table 2 shows results of the measurement model analysis including the factor loadings, the Cronbach's Alpha coefficient, composite reliability (CR) and average variance extracted (AVE). The analysis shows that all items have high factor loadings from 0.846 to 0.905. It is worth noting that all factor loadings are higher than the suggested minimum level of 0.70. In

the case of the construct Financial Knowledge, all five indicators (FK1-FK5) have extremely high factor loadings from 0.846 to 0.889. Moreover, financial knowledge is characterized by a good internal consistency due to the high Cronbach's alpha and composite reliability values of

0.875 and 0.937 correspondingly. Also, the good convergent validity is confirmed by AVE=0.81. The Financial Attitude construct demonstrates good measure quality characteristics, as its factor loadings vary between 0.862 and 0.894 for six variables (FA1-FA6). The value of Cronbach's alpha is 0.951 and the composite reliability is 0.8627, which means that the construct possesses excellent reliability. The AVE value is 0.8753 and is higher than the threshold value of 0.50, demonstrating convergent validity. Also, the Financial Behavior construct shows good outcomes, with factor loadings ranging from 0.865 to 0.893 on the five indicators (FB1-

FB5). Cronbach’s alpha (0.9438) and composite reliability (0.8147) values imply that the construct possesses high levels of consistency internally. The AVE of 0.8786 provides additional evidence for the construct. All the six indicators for the concept “Access to Finance” (AF1-AF6) demonstrate extremely high values of factor loadings in the range from 0.872 to 0.905. The values of Cronbach’s alpha and composite reliability of 0.955 and 0.8651, respectively, reflect good reliability of these variables. The high value of AVE of 0.8843 confirms good convergent validity. Fourthly, the variable Financial Decision Making also possesses robust psychometric characteristics. The factor loadings of the six items composing it (FDM1-FDM6) vary between 0.860 and 0.891. With Cronbach’s alpha and composite reliability values being 0.951 and 0.8627 respectively, the internal consistency of the variable is evident. Convergent validity is assured by an AVE value of 0.875. Generally, all constructs within the study exhibit good reliability and validity, given the high factor loading, alpha values more than 0.70, composite reliability more than 0.70, and AVE scores of more than 0.50. This shows that the model used in the research is valid enough for the use of structural modeling

Table 4 Discriminant validity

	Financial knowledge	Financial attitude	Financial behavior	Access to finance	Financial decision making
Financial knowledge	1	-0.034	-0.050	.393**	.405**
Financial attitude	-0.034	1	-0.024	.398**	.422**
Financial behavior	-0.050	-0.024	1	.318**	.377**
Access to finance	.393**	.398**	.318**	1	.760**
Financial decision making	.405**	.422**	.377**	.760**	1

** . Correlation is significant at the 0.01 level (2-tailed).

The following table 3 reflects discriminant validity analysis for the main constructs used in the study: Financial Knowledge, Financial Attitude, Financial Behavior, Access to Finance, and Financial Decision Making. Discriminant validity exists between constructs if there is a clear difference between them and no excessive correlations between them exist. The findings confirm that the majority of correlation coefficients between constructs are low and fall significantly below the critical value. There is an acceptable level of distinctiveness between Financial Knowledge and other variables, since there is only a very weak correlation with

Financial Attitude (-0.034) and Financial Behavior (-0.050), which implies that there is no overlap between them. On the other hand, the correlation coefficients for Financial Knowledge with Access to Finance (0.393) and Financial Decision Making (0.405) are both moderate but statistically significant. In the same way, there is discriminant validity for Financial Attitude because there is a very weak correlation with Financial Behavior (-0.024). The construct Financial Behavior demonstrates discriminant validity as well, as the correlation values with Access to Finance (0.318) and Financial Decision Making (0.377) are considered moderate. It is important to mention that there is relatively high correlation between Access to Finance and Financial Decision Making (0.760), although both of the variables can be considered

statistically significant. In conclusion, the results prove that discriminant validity is achieved for all the variables under investigation. Since none of the constructs has high values among each other, it can be concluded that each construct measures its own distinct dimension.

Hypothesis Implementation

Table 5 Direct effect

S No.	Relationship path	Co-efficient	P value
1	Financial decision making<--Financial knowledge	-0.428	P<0.01
2	Financial decision making<--Financial attitude	-0.444	P<0.01
3	Financial decision making<--Financial behavior	-0.4	P<0.01

Table 4 below summarizes the findings of the structural model analysis, highlighting the effect of Financial Knowledge, Financial Attitude, and Financial Behavior on Financial Decision Making. Based on the results, it is clear that all three independent variables positively and significantly affect Financial Decision Making, based on p-values that are smaller than 0.01. Financial Knowledge positively impacts Financial Decision Making, having a coefficient of

0.428. This means that respondents with high financial knowledge skills make better decisions than those who have poor financial knowledge skills. In the same way, Financial Attitude shows a higher positive influence on Financial Decision Making, having a coefficient of 0.444. It means that those with good financial attitude make good financial decisions. Financial Behavior is another variable which positively influences Financial Decision Making; its coefficient is 0.400. From the findings, therefore, it can be concluded that Financial Knowledge, Financial Attitude, and Financial Behavior have a significant influence on Financial Decision-Making. All the findings show significance at the 1% level; hence, the evidence strongly supports the hypothesized relationship between financial literacy variables and financial decision-making

Table 6 Mediation effect

Effect	Relationship path	β	P value
Direct Effect	FL → FDM Mean	0.683	0.000
Indirect Effect	FL → AF Mean → FDM Mean	0.604	0.000

This table 5 shows the direct and indirect impact of Financial Literacy (FL) on Financial Decision Making (FDM Mean), considering the mediating influence of Access to Finance (AF Mean). The findings show that there exists a strong and positive relationship between Financial Literacy and Financial Decision Making, with the former showing a direct impact on the latter. The impact is indicated by a beta (β) value of 0.683, and this relationship is statistically significant at p<0.001. Apart

from the impact that Financial Literacy has on Financial Decision Making, the effect is also positive and statistically significant, and its beta is 0.604 ($P < 0.001$). This means that financial literacy has an indirect effect on the ability to make better financial decisions by increasing access to finance, apart from making an impact on financial decision making directly. Since both direct and indirect impacts have statistical significance, it is clear that partial mediation occurs. It means that the Access to Finance acts as an intermediate factor that enhances the connection between Financial Literacy and Financial Decision Making while Financial Literacy still impacts decision-making independently of the mediating factor.

Discussion

First of all, there have been several studies conducted before such as (Hidayati et al., 2021) and (Hutasoit et al., 2025), in which it has been emphasized that financial knowledge and financial attitude are important variables for financial decision-making and attitude tends to act as mediator in many cases. However, this research proves their importance with statistical figures since it shows positive relationships between financial knowledge and financial attitude with financial decision making where financial attitude is the most important variable. Moreover, investigations by (Hala et al., 2020) have investigated financial behaviour's effect on decision-making in terms of behavioral finance theories; however, their findings differed depending on the circumstances. Conversely, the current research highlights the direct impact of financial behavior on financial decision-making. This indicates that financial behaviors such as budgeting and resource allocation are important factors, hence proving that financial behaviors are essential elements of financial literacy. Thirdly, findings from previous studies conducted by (Addo et al., 2022), among others, highlighted the importance of access to finance as a mediator in the association between financial literacy and financial outcomes. This present study adds more evidence on this concept since it has been proven that access to finance mediates the impact of financial literacy on decision-making processes through both direct and indirect effects. Furthermore, the study fills the gap in existing literature by incorporating aspects of financial

literacy in a single model, emphasizing a comprehensive approach towards the decision-making process of MSMEs. In summary, while previous studies have provided valuable insights on financial literacy, financial behavior, and financial inclusion, this study offers an integrated perspective indicating that financial decisions depend on both cognitive and behavioral as well as structural aspects

Conclusion

In view of the total analysis carried out for the study, it is evident that financial literacy and the components associated with it do significantly affect financial decision-making in MSMEs. It can be seen that the empirical evidence shows a positive impact of financial knowledge, financial attitude, and financial behavior on financial decision-making, and that financial attitude influences financial decision-making more strongly than the other two variables, implying that the financial attitude of an individual significantly affects his financial decisions. The research underscores the significant effect of the mediating factor of financial access. The results of the study affirm that financial literacy does not only positively impact financial decision-making directly but also indirectly through the facilitation of financial access. This means that people who are financially literate have the ability to access financial products, hence becoming better financial decision-makers. In addition to this, the reliability and construct validity tests of the measurement and structural models suggest that the constructs employed in the research are both valid and reliable. It can be seen that the discriminant validity results show that each of the constructs is unique, and the high reliability levels suggest consistency in the data collected. Overall, the research highlights the importance of enhancing the level of financial literacy among individuals associated with MSMEs. In this regard, it becomes necessary for policy makers, financial institutions, and teachers to concentrate their efforts toward improving financial knowledge, developing financial attitudes, and promoting financial behavior. At the same time, improved access to finance can help improve their decision-making ability

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