

FINANCIAL BEHAVIOR OF MSMES: DO FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE, AND FINANCIAL RISK TOLERANCE MATTERS?

Raya Anandita Puspaning Adhisti¹, Bima Cinintya Pratama^{2*}, Azmi Fitriati³, Dwi Winarni⁴

^{1,2,3,4} Accounting, Universitas Muhammadiyah Purwokerto, Indonesia

*Email corresponding author: BimaCinintyaPratama@ump.ac.id

Abstrak

Penelitian ini menguji pengaruh pengetahuan keuangan, sikap keuangan, toleransi risiko keuangan terhadap perilaku keuangan. Populasi yang digunakan dalam penelitian ini adalah 252.116 pelaku UMKM di Kabupaten Banyumas, Purbalingga, Banjarnegara, Cilacap, dan Kebumen. Metode perhitungan sampel dalam penelitian ini adalah teknik 10 time rule of thumb, yang menggunakan 200 pelaku usaha. Teknik pengambilan sampel yang digunakan adalah teknik multistage random sampling pada pelaku usaha UMKM di Kabupaten Banyumas, Purbalingga, Banjarnegara, Cilacap dan Kebumen. Penelitian ini menggunakan metode Partial Least Square Structural Equation Modeling (PLS-SEM) yang meliputi dua model, yaitu outer model dan inner model. Hasil penelitian ini menunjukkan bahwa variabel financial knowledge, financial attitude, dan financial risk tolerance berpengaruh positif terhadap financial behavior dikarenakan financial knowledge mempunyai peran dapat membantu UMKM dalam pengambilan keputusan yang efektif mengenai pengelolaan dan penggunaan uang. Kemudian pada financial attitude diharapkan dapat membantu pelaku UMKM untuk bisa meningkatkan kemampuan keuangan UMKM dalam mengambil keputusan serta dapat menciptakan kondisi keuangan yang stabil sesuai harapan. Sedangkan pada financial risk tolerance, pelaku usaha diharapkan memiliki kemampuan untuk bersikap lebih hati-hati dan teliti dalam peran toleransi resiko pada UMKM yang sangat berpengaruh terhadap perilaku keuangan, ancaman keuangan serta kepercayaan. Penelitian ini memberikan implikasi bahwa seorang pelaku UMKM harus mempertimbangkan dan meningkatkan kemampuan keuangan agar terciptanya kestabilan dalam sistem keuangannya.

Kata Kunci: pengetahuan keuangan, sikap keuangan, toleransi risiko keuangan, perilaku keuangan
JEL Code: D01; D91; G40

Abstract

This study examines the effect of financial knowledge, attitude, and risk tolerance on financial behavior. The population used in this study were 252,116 MSME actors in Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen Regencies. The sample calculation method in this study is the 10- time rule of thumb technique, which uses 200 business actors. The sampling technique used was a multistage random sampling on MSME business actors in Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen Regencies. This study uses the Partial Least Square Structural Equation Modeling (PLS-SEM) method which includes two models, namely the outer model and the inner model. The results of this study indicate that the variables of financial knowledge, financial attitude, and financial risk tolerance have a positive effect on financial behavior because financial knowledge has a role in helping MSMEs make effective decisions regarding the management and use of money. Then the financial attitude is expected to help MSME actors to be able to improve the financial ability of MSMEs in making decisions and can create stable financial conditions as expected. Meanwhile, in financial risk tolerance, business actors are expected to have the ability to be more careful and thorough in the role of risk tolerance in MSMEs which greatly affects financial behavior, financial threats, and trust. This study provides implications that an MSME actor must consider and improve financial capabilities to create stability in their financial system.

Keyword: Financial Knowledge, Financial Attitude, Financial Risk Tolerance, Financial Behavior
JEL Code: D01; D91; G40

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy. Following Law Number 20 of 2008, micro, small, and medium enterprises (MSMEs) are small companies owned and managed by individuals or small groups with a certain amount of wealth and income. MSMEs are a sector that can survive amid an unstable Indonesian economy. Despite this economic instability, the number of MSMEs continues to grow and has not decreased. Although management in MSMEs is relatively simple, they can still survive.

In the era of globalization, various types of MSMEs face challenges to continue to develop and survive in running their businesses ([Daulay, 2018](#)). An individual can obtain this by mastering the appropriate financial capabilities. A person's ability to control finances is significant in achieving welfare. For MSMEs, welfare will make their business finances more stable.

In Central Java Province, namely in the Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen Regencies, MSME players continue to earn more than one billion in revenue each year, especially in the culinary / food and beverage sector (BPS Central Java, 2024). This can be used to determine the extent to which business fields in each district need financial capacity. Below is data on MSME revenues in Central Java Province, namely in Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen Regencies.

Table 1. MSME Revenue
Banyumas, Purbalingga, Cilacap, Kebumen, Banjarnegara

MSME Revenue					
	Banyumas	Purbalingga	Cilacap	Kebumen	Banjarnegara
2019	3.589.153.068	2.547.834.374	2.353.280.499	2.119.687.028	829.105.152
2020	3.166.992.053	2.488.434.976	2.488.217.928	3.608.164.532	956.174.359
2021	2.142.705.575	3.024.928.939	4.362.982.157	3.486.960.640	2.077.758.144
2022	4.771.087.840	3.230.722.035	2.717.111.499	5.782.007.051	2.283.115.241

Source : BPS Central Java, 2024

Table 1 shows data on the annual income of MSME actors in the Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen districts. There are fluctuations in the income of MSMEs in Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen, which may be due to the impact of the pandemic. So, it can be concluded that MSMEs in the Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen regions need efforts to increase the annual income of MSME actors to achieve good financial capability. Therefore, there needs to be an effort to improve financial capability in order to create stability in the financial system.

A person's financial capability in managing finances has a very significant role in achieving welfare ([Arifin, 2017](#)). The current government continues to strive to create a comfortable environment for MSMEs to understand financial complexity in order to make the right financial decisions and plan financial goals wisely ([Arifin, 2018](#)). By developing knowledge, understanding, attitudes and behavior in financial matters ([Ajzen, 2002](#)).

Developing knowledge, attitudes, and behaviors related to the theory of planned behavior. Where the theory states that behavior is a function of information or beliefs that can affect financial capability ([Ajzen, 2002](#)) People can have a variety of beliefs, but when faced with an event, only a few of these beliefs arise to influence their behavior. For this reason, several factors emerge, including financial knowledge, attitudes, risk, and behavior, to improve one's financial capability, especially for business people.

The first factor that affects financial behavior is financial knowledge. Financial knowledge is defined as a person's ability to understand various knowledge such as personal financial knowledge, knowledge related to investment, and knowledge about savings ([Robb A. Cliff & Ann, 2011](#)). Meanwhile, according to [Herdjiono & Damanik \(2016\)](#) Financial knowledge is the knowledge to manage finances and make financial decisions. If an MSME actor already understands how good financial management is, it is hoped that they can make decisions based on the financial understanding they know correctly ([Lusardi & Mitchell, 2014](#)).

According to research [Batty et al. \(2015\)](#); [Cera et al. \(2021\)](#); [Collins & Odders-White \(2015\)](#) states that financial knowledge has a positive effect on financial behavior where if someone has better financial knowledge or understanding, an MSME actor can produce better control of their finances and can manage cash flow more effectively ([Cera et al., 2021](#)).

Other previous studies, namely [Batty et al. \(2015\)](#); [Cera et al. \(2021\)](#); [Potocki & Cierpiat-Wolan \(2019\)](#); and [Xiao et al. \(2014\)](#) State that financial knowledge has a positive effect on financial behavior. A person with good financial capability who applies financial knowledge supported by desired financial behavior is expected to achieve the financial well-being of MSME actors.

The second factor that influences financial behavior is financial attitude. Financial attitude is a response or statement that reflects a positive or negative view regarding money and financial behavior in the future ([Shih & Ke, 2014](#)). Meanwhile, according to [Sandi et al. \(2020\)](#) financial attitude is a financial attitude that is owned by someone that will help that individual in determining their attitudes and behavior in financial matters, both in terms of financial management, personal financial budgeting, or how individual decisions regarding the form of investment are to be taken. Financial attitude is one of the factors to measure a person's financial capability in the form of attitudes of MSME actors ([Cera et al., 2021](#)).

According to research [Batty et al. \(2015\)](#), [Cera et al. \(2021\)](#); [Serido et al. \(2013\)](#) states that financial attitude has a positive effect on financial behavior where the positive attitude of MSME actors towards financial management is expected to facilitate good financial management, while a negative attitude can lead to poor financial management and cause unwanted problems. Based on the explanation above, determining one's attitude is very influential on the financial matters of MSME actors. Therefore, financial knowledge affects financial behavior.

The third factor that influences financial behavior is financial risk tolerance. Financial risk tolerance is an attitude of risk tolerance that refers to the ability to withstand volatility or fluctuations in returns following established guidelines that the role of risk tolerance greatly influences financial behavior, financial threats, and trust. In the financial decision-making of MSME actors, there are influencing factors such as demographic factors, including age, gender, income level, and education level found to be related to financial risk tolerance by individuals ([Song et al., 2023](#)).

According to research [Song et al. \(2023\)](#) state that financial risk tolerance has a positive effect on financial behavior where the impact of other economic and cognitive factors, such as financial knowledge, on individual financial risk tolerance and its influence on several personal characteristics such as personality traits on financial risk tolerance ([Owusu et al., 2023](#)) Based on the explanation above, an MSME actor must also be careful in making a financial decision because this has an impact on the economic factors that will be faced next, and it also affects investment decisions.

This research refers to the research of [Cera et al. \(2021\)](#), [Hermansson & Jonsson \(2021\)](#), and [Owusu et al. \(2023\)](#), which examines the effect of financial behavior on the role of financial risk tolerance in MSME actors by adding financial knowledge variables, and financial attitudes as independent variables and making financial behavior the dependent variable. These variables are added to increase the financial capacity of MSME actors through financial knowledge, financial attitude, financial risk, and financial behavior ([Cera et al., 2021](#)). This research is focused on the MSME sector because this sector lacks financial management. The MSME sector is prioritized in the Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen regions. Financial knowledge,

financial attitudes, the role of financial risk tolerance, and financial behavior are needed by a person to be able to improve their financial capabilities in better financial management of MSMEs.

This research is focused on the MSME sector because this sector still has shortcomings its financial management. This MSME sector is prioritized in the Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen areas. So that it requires wise financial skills. Knowledge, attitudes, risk tolerance, and financial behavior are much needed by someone to improve their financial behavior in better financial management.

LITERATUR REVIEW AND HYPOTHESES DEVELOPMENT

Theory Planned Behavior (TPB)

The theory of planned behavior used in this study is a theory that has been widely applied to understand how individuals behave and how to show reactions. This theory is one of the social psychology theories that predicts behavior ([Özer & Yilmaz, 2011](#)). This theory also assumes that a person's behavior is not only controlled by himself, but also requires control from the availability of resources and opportunities or certain skills, so it is important to add the concept of perceived behavior control that is perceived to affect intentions and behavior ([Ajzen, 1985](#)).

The theory of planned behavior refers to a statement stating that behavior is a function of information or beliefs that can affect financial capability. To achieve good financial capability, a person must carry out a series of activities in which there is knowledge, understanding, behavior, risk tolerance, and financial behavior ([Ajzen, 2002](#)). This is supported by the statement that individual assessment of the capacity to achieve the desired financial behavior and achieve financial capability through knowledge, behavior, risk tolerance, and financial behavior ([Özer & Yilmaz, 2011](#)).

The Effect of Financial knowledge on Financial behavior

Financial knowledge is an understanding of the main financial terms and concepts needed for everyday life ([Faulcon Bowen, 2002](#)). In line with the previous understanding, a person's knowledge is also needed to know about the market and the financial system is an important component of financial capability ([Lusardi & Mitchell, 2014](#)). When associated with the theory of planned behavior, it states that behavior is a function of information or beliefs that can affect financial capability. For someone with a high financial understanding then achieving financial well-being is very easy ([Potocki & Cierpiat-Wolan, 2019](#)). Therefore, financial behavior is closely related to financial capability ([Xiao et al., 2014](#)).

Previous research conducted ([Batty et al., 2015](#); [Cera et al., 2021](#); [Collins & Odders-White, 2015](#)) states that financial knowledge has a positive effect on financial behavior, stating that having good financial knowledge or understanding, a person can produce better financial behavior. Based on the description above, the following hypothesis can be formulated:

H1: Financial knowledge has a positive effect on financial behavior

The Effect of Financial Attitude on Financial Behavior

Financial attitude is an attitude to how a person feels about personal financial matters, as measured by responses to a statement or opinion. ([Herdjiono & Damanik, 2016](#)) state that a person's financial behavior arises from his financial attitude, individuals who are not wise in responding to their financial problems tend to have poor financial behavior. In line with ([Shih & Ke, 2014](#)) financial attitudes shape the way people spend, save, hoard, and waste money. When associated with the theory of planned behavior, it states that behavior is a function of information or beliefs that can affect financial capability, if someone has short-term thinking and there is no willingness to save, it will cause financial problems in the long run ([Batty et al., 2015](#)).

Previous research conducted ([Batty et al., 2015](#); [Cera et al., 2021](#); [Serido et al., 2013](#)) The formation of a positive attitude toward financial management can facilitate good financial management, while

a negative attitude can lead to poor financial management and cause unwanted problems, stating that financial attitude has a positive effect on financial behavior. Based on the description above, the following hypothesis can be formulated:

H2 : Financial attitude has a positive effect on financial behavior

The Effect of Financial Risk Tolerance on Financial Behavior

Financial risk tolerance is the minimum level of uncertainty that a person is willing to accept when making a financial decision ([Yap & Artates, 2023](#)). Risk tolerance is included in the attitude that a person has towards the risks that will be faced, whether an investor likes risk (risk seeker), avoids risk (risk averter), or ignores risk (risk indifference). When associated with the theory of planned behavior, behavior is a function of information or beliefs that can affect the ability of all activities and actions related to planning, handling, using and controlling cash, using credit or debt, saving and investing, and insurance ([Xiao et al., 2014](#)). When risk tolerance increases, investment decisions also increase. This study also supports the findings of ([Naiwen et al., 2021](#)) which show that the higher the investor's risk tolerance, the better the investment decision.

This research is also in line with ([Nurdinda et al., 2020](#)) which shows that investor risk tolerance affects investment decisions. Therefore, the investment made will increase self-confidence and potential future profits. Based on the description above, the following hypothesis can be proposed:

H3 : Financial risk tolerance has a positive effect on Financial behavior

RESEARCH METHOD

This research uses a quantitative approach using primary data in the form of questionnaires. The sample used in the study was the MSME sector in Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen Regencies. The population used in this study were MSME actors contained in BPS data totaling 252.116. This study uses a multistage random sampling technique, namely by grouping districts, setting criteria, and then location. The sample criteria in this study are MSMEs with a minimum number of employees of 2 people and a minimum age of 1 year.

Items & Variables of this study are presented in Table 2:

Table 2. Items & Variables

Items & Variables
Financial Knowledge (Cera et al., 2021 ; Robb A. Cliff & Ann, 2011)
Inflation
FK1.1 (I understand how high a business's inflation target can be)
FK1.2 (If there is a risk of inflation exceeding the target, I know what to do)
FK1.3 (If there is a nominal interest rate of 5%, and expected inflation is 2%, I know how high inflation actually is, the interest rate is an estimate)
FK1.4 (High inflation means that the cost of living is increasing rapidly)
Saving Product
FK2.1 (I understand a savings product where the recipient of the funds is guaranteed at maturity, and the returns will follow the equity market)

FK2.2 (If price goes up rapidly, the money people have in saving accounts could lose much of it's value)

Taking Risks

FK3.1 (I am aware of the risk levels of different mutual funds and understand the highest risks.)

FK3.2 (An investment with a high return is likely to be highly risky)

P/E Ratio

FK4.1 (Know the explanation of P/E-ratio)

FK 4.2 (I am pretty good at calculation like profit and loss, percentage)

Mortgages

FK5 (I understand the cost of buying on credit)

Financial Attitude ([Atkinson & Messy, 2012](#); [Cera et al., 2021](#))

Credit Card Use

FA 1.1 (I am prepared to risk some of my own money when saving or making an investment)

Planned Consumption

FA 2.1 (I pay my bills on time)

FA 2.2 (I keep a close personal watch on my financial affairs)

Savings

FA3 (It is important to set goals for the future)

Financial Risk Tolerance ([Hermansson & Jonsson, 2021](#); [Owusu et al., 2023](#))

Investment

FRT1.1 (If I believe an investment will earn a profit, I am willing to borrow money to make this investment)

Taking Risks

FRT 2.1 (I believe I need to take more financial risks if I want to improve my financial position)

FRT 2.2 (I am willing to run the risk of losing money if there is also a chance that I will make money.)

FRT 2.3 (I am willing to take risks, such as starting a business or gambling, unlike other people, who prefer a secure job with fixed pay to an uncertain venture)

FRT 2.4 (I am prepared to take greater risks (possibility of initial losses) in order to earn greater future returns.)

FRT 2.5 (I feel more comfortable taking risks (possibility of initial losses) when my investments are performing well.)

Financial Behavior ([Cera et al., 2021](#); [Owusu et al., 2023](#))

Saving Investment

FB1.1 (I pay off overdraft balance in full each month.)

FB1.2 (I normally exceed the maximum withdrawal limit on one or more ATM cards.)

FB 1.3 (I make only minimum payments on loans.)

Budgeting

FB 2.1 (I stay within my budget or spending plan.)

FB 2.2 (I keep a written or electronic record of all my monthly expenses.)

FB 2.3 (I pay all my bills on time (electricity, water, and phone).

FB 2.4 (I do comparison shopping when purchasing all my products or services)

Insurance

FB3.1 (I save for long-term goals (such as car, education, business startup).

FB 3.2 (I have purchased bonds, stocks or shares, Treasury bills, or mutual funds.)

FB 3.3 (I maintain or purchase an adequate health insurance policy)

FB 3.4 (I maintain or purchase adequate property insurance, such as comprehensive auto or homeowners' insurance.)

FB 3.5 (I maintain or purchase adequate life insurance.)

Debt Management

FB 4.1 (I have begun or maintain an emergency savings fund.)

FB 4.2 (I save some amount from every pay check or income.)

FB 4.3 (I contribute money to a retirement account).

Data Analysis Technique

This research data analysis technique uses Smart Partial Least Square (Smart PLS), which includes the outer and inner models. The outer model is used for validity and reliability tests, and inner model testing is carried out for the R-square and F-square tests. The two models are tested using the PLS Algorithm. Furthermore, hypothesis testing is done through bootstrapping.

Characteristic of Respondent

The number of respondents studied in this study is 200, with the criteria being the business sector in Central Java Province, namely in Banyumas, Purbalingga, Banjarnegara, Cilacap and Kebumen Regencies. The following are the characteristics of respondents for this study:

Table 3. Characteristic of Respondent

Criteria	Sub Criteria	Jumlah	Presentase
Gender	Male	110	55,00%
	Female	90	45,00%
Age of Business Owner	19-28	50	25,00%
	29-38	47	23,50%
	39-48	55	27,50%
	49-59	41	20,50%
	60-87	7	3,50%
Business Age	1-2 years	56	28,00%
	3-6 years	71	35,50%
	7-11 years	33	16,50%
	12-16 years	13	6,50%
	17-25 years	16	8,00%
	>25 years	11	5,50%
Business Ownership Structure	Personal Business	167	83,50%
	Family Business	27	13,50%
	Limited Partnership	4	2,00%
	Limited Liability Company	2	1,00%

Based on table 3, the majority of respondents in this study were male with a percentage of 55. Respondents with the majority of the age range 19-28 years (25%) are classified as generation Z. This study was mostly dominated by privately owned businesses, which amounted to 83.5%, while the rest were family businesses, limited partnerships, and limited liability companies. Meanwhile, the criteria based on the length of business age are 2 to 6 years old as much as 56%.

RESULT & DISCUSSION

Table 4 presents descriptive statistics regarding financial knowledge, attitude, risk tolerance, and behavior variables.

Table 4. Descriptive Statistics

Variable	Score
Financial Knowledge	4.123
Financial Attitude	4.267
Financial Risk Tolerance	4.188
Financial Behavior	4.169

Source : SEM – PLS Data Processing Results (2023)

Based on table 4, is the average score generated for each variable. This score is in the very high category. This shows that MSME actors assess that understanding financial concepts well can make their MSME businesses well directed and may be able to minimize the possibility of losses or other unwanted things in the future. Therefore, they are quite helped by the existence of financial knowledge, financial attitude, financial risk tolerance, and financial behavior like this which can be learned first.

Table 5 presents the loading factor, AVE, and composite Reliability values regarding financial knowledge, attitude, risk tolerance, and behavior variables.

Table 5. Loading factor, AVE, and Composite Reliability Values

Variable	Indicator	Loading Factor	AVE	Composite Reliability
Financial Knowledge	FK1	0.771	0.646	0.901
	FK2	0.826		
	FK3	0.806		
	FK4	0.777		
	FK5	0.836		
Financial Attitude	FA1	0.835	0.707	0.906
	FA2	0.846		
	FA3	0.833		
	FA4	0.849		
Financial Tolerance	FRT1	0.971	0.860	0.968
	FRT2	0.979		
	FRT3	0.700		
	FRT4	0.981		
	FRT5	0.972		
Financial Behavior	FB1	0.738	0.555	0.949
	FB2	0.765		
	FB3	0.684		
	FB4	0.711		
	FB5	0.713		
	FB6	0.822		
	FB7	0.729		
	FB8	0.639		
	FB9	0.818		
	FB10	0.718		
	FB11	0.804		
	FB12	0.781		
	FB13	0.713		

FB14	0.809
FB15	0.699

Source: SEM – PLS Data Processing Results (2023)

Based on table 5, is the loading factor score, AVE, and composite reliability of each variable indicator. For the loading factor score per indicator itself, the results have a loading factor value of more than 0.7, so it can be stated that all indicators are said to be valid because they have met the requirements of convergent validity. Then next, namely AVE, the average value of the variance extracted from all these variables is more significant than 0.5. Furthermore, composite reliability has a value of more than 0.7. So, it can be stated that all variables are reliable because they have met the requirements of composite reliability.

Structural Model Test (Inner Model)

R-Square

The R-Square value is used to measure the effect of the independent variable on the dependent variable ([M. N. Innayah & B. C. Pratama, 2021](#)), namely to measure the evaluation of the structural model and can consider the predictive ability of the model. The results of the R-Square model test are presented in the table.

Table 6. R-Square

Result of R^2

	R Square	R Square Adjusted
Financial Behavior	0.851	0.849

Source: Primary Data Processed, 2023

Table 6 shows the R Square Adjusted Attitude value of 0.849. This value shows the contribution of financial knowledge, financial attitude, and financial risk tolerance to financial behavior by 84.9%.

F-square

The f-square value is to measure the influence of an independent variable and whether the variable has a substantive influence on the dependent variable ([M. N. Innayah & B. C. Pratama, 2021](#)). To measure f-square, the criteria used are $f^2 > 0.02$, $f^2 > 0.15$, and $f^2 > 0.35$ which indicates that the predictor variables will have a small, medium, and very large influence at the structural level ([J. Cohen, 1992](#)) Based on Table 5. obtained results for the financial knowledge variable of 0.528, the financial attitude variable of 0.091, the financial risk tolerance variable of 0.057 which means that it has a significant effect on financial capability based on guidelines.

Table 7. f-square

	Financial Behavior
Financial Attitude	0,091
Financial Knowledge	0,528
Financial Risk Tolerance	0,057

Source: Primary Data Processed, 2023

Based on Table 7, the squared f value shows that financial knowledge has a large influence, while financial attitude and financial risk tolerance have a moderate influence on financial behavior.

Table 8 shows the Path Coefficient value of the contribution of financial knowledge, financial attitude, and financial risk tolerance to financial behavior. The opinion test can be assessed through the p-value, if the p value is less than 0.05, it can be concluded that the independent variable affects the dependent variable ([I. Ismoyowati et al., 2020](#)). The relationship between variables is said to be positive if the Original Sample value shows a positive value ([M. N. Innayah & B. C. Pratama, 2021](#)).

Table 8 shows that the p-value of all variables has a value <0.05 and has a positive original sample value, meaning that all independent variables have a positive influence on the dependent variable.

Tabel 8. Path Coefficient

Total Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
Financial Knowledge -> Financial Behavior (H1)	0,501	0,508	0,045	11,245	0,000	Supported
Financial Attitude -> Financial Behavior (H2)	0,297	0,289	0,068	4,386	0,000	Supported
Financial Risk Tolerance -> Financial Behavior (H3)	0,187	0,190	0,063	2,988	0,003	Supported

Source: Primary Data Processed, 2023

Table 8 shows that if the p-values are less than 0.05, the independent variable affects the dependent variable. The relationship between variables is said to be positive if the original sample value shows a positive value. Financial knowledge, attitude, and risk tolerance affect financial behavior.

Discussion

First Hypothesis Testing Results

Table 7 shows that the P-value of financial knowledge on financial behavior is significant at the level of $\alpha = 5\%$ with a positive coefficient direction. These results provide a conclusion that financial knowledge has a positive influence on financial behavior and confirm that the first hypothesis is supported.

This means that the higher the financial knowledge MSME business actors apply in managing their MSMEs, the higher the financial behavior. A person can assess his capacity to achieve the desired financial knowledge through his financial understanding ([Danes & Haberman, 2007](#)). Based on the research sample, the majority of respondents are young. They are generally highly educated and understand good financial concepts ([Okello Candiya Bongomin et al., 2016](#)). It can be said that they are easy to make more organized financial plans for the future so that they can create financial prosperity in the business they manage. Someone who knows potential market returns, inflation, and interest in finance can be said to have good financial capability. ([Lusardi & Mitchell, 2014](#)). The higher the UMKM business actors understand the concept of financial knowledge, the financial behavior will also increase. Conversely, if the financial knowledge of MSME business actors is low

and not considered, financial behavior will decrease. The results of the empirical study of this study support several previous empirical studies ([Nurjannah et al., 2016](#)), ([Tahar et al., 2020](#)) which show a positive effect of financial knowledge on financial behavior. That way the desired result of financial knowledge in achieving financial well-being can be achieved with financial understanding.

Second Hypothesis Testing Results

Table 7 shows that the P-value of financial attitude on financial behavior is significant at the level of $\alpha = 5\%$ with a positive coefficient direction. These results provide a conclusion that financial attitude has a positive influence on financial behavior and confirm that the second hypothesis is supported.

This can be interpreted that the higher the financial attitude MSME business actors apply in managing their MSMEs, the more financial behavior will also increase. Based on the research sample above, the age of MSME business actors is an important factor in influencing their financial attitudes towards their financial capabilities such as the planned use of these MSME business actors ([Arifin, 2018](#)). This relates to financial behavior when having short-term thinking and the absence of a willingness to save are attitudinal factors that can lead to financial problems in the future ([Herdjiono & Damanik, 2016](#)). Then by looking at the research sample that the most business ownership sector is a private business, in the attitude of MSME business actors, MSME business actors should plan finances so that they do not take the wrong path that will make their business not run well. The higher the UMKM business actors understand the concept of financial attitude, the financial behavior will also increase. Conversely, if the financial attitude of MSME business actors is low and not considered, financial behavior will decrease. The results of empirical studies ([Batty et al., 2015](#); [Cera et al., 2021](#); [Serido et al., 2013](#)) The results from this study support several previous empirical studies that show a positive effect of financial attitude on financial behavior. A positive financial attitude towards financial management can facilitate good financial management as well. Based on the description above, it is found that financial attitude positively affects financial behavior.

Third Hypothesis Testing Results

Table 7 shows that the P-value of financial risk tolerance on financial behavior is significant at the level of $\alpha = 5\%$ with a positive coefficient direction. These results conclude that financial risk tolerance positively influences financial behavior and confirm that the third hypothesis is supported.

This means that the higher the financial risk tolerance MSME business actors apply in managing their MSMEs, the more financial behavior will also increase. When looking at the age of respondents in the young category, it is hoped that by making this financial risk tolerance guideline a knowledge of investments made to increase self-confidence and potential future profits. An MSME business actor should have this attitude because with the caution possessed, an MSME actor can be more careful in making a decision, be it in planning, handling, controlling cash, using credit or debt, and investing. If the risk tolerance of an MSME business actor increases, investment decisions will also increase. This study also supports the findings of ([Naiwen et al., 2021](#)) the higher the investor's risk tolerance, the better the investment decision. This research is also in line with ([Nurdinda et al., 2020](#)) Which shows that investor risk tolerance affects investment decisions. Learning financial concepts is associated with improved attitudes and behavior; if this continues, financial risk tolerance can have a positive effect on financial behavior.

Conclusion

This study aims to determine the effect of financial knowledge, attitude, and risk tolerance on financial behavior. The results indicate positive results in each hypothesis that has been proposed.

The results have important implications for MSME actors in Banyumas, Purbalingga, Banjarnegara, Cilacap, and Kebumen Regencies.

It shows practical implications that financial behavior has an important role for MSMEs and for MSME actors in developing these MSMEs for the better. The financial behavior will be better if it is influenced by other factors such as financial knowledge, financial attitude, and financial risk tolerance to improve the capabilities of MSMEs. More specifically, it is hoped that this research can provide theoretical contributions to the development of MSMEs, especially in Banyumas, Purbalingga, Cilacap, Banjarnegara, and Kebumen. In addition, this research has implications for the Government in the Banyumas, Purbalingga, Cilacap, Banjarnegara, and Kebumen Regencies to develop MSME management by improving the financial management of MSMEs in these areas.

The limitation of this study is that MSME business actors sometimes do not fill in only those they think are easy to understand. For further suggestions, Researchers can use language that is easy to understand in making the questionnaire so that it is easier for MSME business actors to fill it out.

Reference

- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. *Action Control*, 11–39.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665–683.
- Arifin, A. Z. (2017). The influence of financial knowledge, control and income on individual financial behavior. *European Research Studies Journal*, 20(3), 635–648.
- Arifin, A. Z. (2018). Influence factors toward financial satisfaction with financial behavior as intervening variable on Jakarta area workforce. *European Research Studies Journal*, 21(1), 90–103.
- Atkinson, A., & Messy, F.-A. (2012). Measuring financial literacy: results of the OECD infle pilot study. *OECD Working Papers on Finance, Insurance and Private Pensions*, 15(15), 1–73.
- Batty, M., Collins, J. M., & Odders-White, E. (2015). Experimental evidence on the effects of financial education on elementary school students' knowledge, behavior, and attitudes. *Journal of Consumer Affairs*, 49(1), 69–96. <https://doi.org/10.1111/joca.12058>
- Çera, G., Khan, K. A., Mlouk, A., & Brabenec, T. (2021). Improving financial capability: the mediating role of financial behaviour. *Economic Research-Ekonomska Istrazivanja*, 34(1), 1265–1282. <https://doi.org/10.1080/1331677X.2020.1820362>
- Collins, J. M., & Odders-White, E. (2015). A framework for developing and testing financial capability education programs targeted to elementary schools. *Journal of Economic Education*, 46(1), 105–120. <https://doi.org/10.1080/00220485.2014.976325>
- Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Journal of Financial Counseling and Planning*, 18(2), 48–60.
- Daulay. (2018). *Strategi Pengembangan Ekonomi Kreatif Jil. 1*.
- Faulcon Bowen, C. (2002). Financial knowledge of teens and their parents. *Journal of Financial Counseling and Planning*, 13(2), 93–102.
- Herdjiono, I., & Damanik, L. A. (2016). Pengaruh Financial Attitude, Financial Knowledge, Parental Income Terhadap Financial Management Behavior. *Jurnal Manajemen Teori Dan Terapan/ Journal of Theory and Applied Management*, 9(3), 226–241. <https://doi.org/10.20473/jmtt.v9i3.3077>
- Hermansson, C., & Jonsson, S. (2021). The impact of financial literacy and financial interest on risk tolerance. *Journal of Behavioral and Experimental Finance*, 29, 100450. <https://doi.org/10.1016/j.jbef.2020.100450>
- I. Ismoyowati, B. C. Pratama, & M. N. Innayah. (2020). Performative and economic analysis on local duck farming in Central Java - Indonesia. *Journal of the Indonesian Tropical Animal Agriculture*, 45(3), 234–242.

- J. Cohen. (1992). Statistical Power Analysis. *Current Directions in Psychological Science*, 1(3), 98–101.
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- M. N. Innayah, & B. C. Pratama. (2021). Board Diversity and Its Effects on Firm Performance and Risk: A Study in Banking Firms. *Journal of Accounting and Investment*, 22(1).
- Naiwen, L., Wenju, Z., Mohsin, M., Ur Rehman, M. Z., N., & Afzal, A. (2021). The role of financial literacy and risk tolerance: An analysis of gender differences in the textile sector of Pakistan. *Industria Textila*, 72(3), 300–308.
- Nurdinda, W., Muslihat, A., & Putra, R. A. K. (2020). Pengaruh Regret Aversion Bias dan Risk Tolerance bagi Investor Muda Jawa Barat terhadap Keputusan Investasi. *AKUNSIKA: Jurnal Akuntansi Dan Keuangan*, 1, 30–38.
- Nurjannah, N., Rasuli, M., & Rusli, R. (2016). ., ., & . (2016). Pengaruh Persepsi Kebermanfaatan, Persepsi Kemudahan, Kepuasan, Kecepatan, Keamanan Dan Kerahasiaan Terhadap Penggunaan Fasilitas E-Filing Sebagai Sarana Penyampaian SPT Masasacara Online Dan Realtime Bagi Wajib Pajak Badan Di Dumai. *Jurnal Online Mahasiswa Fakultas Ekonomi Universitas Riau*, 4(1), 1828–1842.
- Okello Candiya Bongomin, G., Ntayi, J. M., Munene, J. C., & Nkote Nabeta, I. (2016). Social capital: mediator of financial literacy and financial inclusion in rural Uganda. *Review of International Business and Strategy*, 26(2), 291–312.
- Owusu, G. M. Y., Korankye, G., Yankah, N. Y. M., & Agyekum Donkor, J. B. (2023a). Financial risk tolerance and its determinants: The perspective of personnel from security services in Ghana. *Borsa Istanbul Review*, 23(4), 852–864.
- Özer, G., & Yilmaz, E. (2011). Comparison of the Theory of Reasoned Action and the Theory of Planned Behavior: an Application on Accountants' Information Technology Usage. *African Journal of Business Management*, 5(1), 50–58.
- Potocki, T., & Cierpiat-Wolan, M. (2019). Factors shaping the financial capability of low-income consumers from rural regions of Poland. *International Journal of Consumer Studies*, 43(2), 187–198.
- Robb A. Cliff, & Ann, W. S. (2011). Financial Knowledge and Best Practice Behavior. *Journal of Financial Counseling and Planning*, 22(1), 60–70.
- Sandi, K., Worokinasih, S., & Darmawan, A. (2020). Pengaruh Financial Knowledge Dan Financial Attitude Terhadap Financial Behavior Pada Youth Entrepreneur Kota Malang. *Profit: Jurnal Administrasi Bisnis, Special Issue*, 140–150.
- Serido, J., Shim, S., & Tang, C. (2013). A developmental model of financial capability: A framework for promoting a successful transition to adulthood. *International Journal of Behavioral Development*, 37(4), 287–297.
- Shih, T. Y., & Ke, S. C. (2014). Determinates of financial behavior: Insights into consumer money attitudes and financial literacy. *Service Business*, 8(2), 217–238.
- Sofyani, H., Tahar, A., Riyadh, H. A., & Purnomo, W. E. (2020). Perceived ease of use, perceived usefulness, perceived security and intention to use e-filing: The role of technology readiness. *Journal of Asian Finance, Economics and Business*, 7(9), 537–547.
- Song, C. L., Pan, D., Ayub, A., & Cai, B. (2023). The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence. *Psychology Research and Behavior Management*, 16, 535–548.
- Xiao, J. J., Chen, C., & Chen, F. (2014). Consumer financial capability and financial satisfaction. *Social Indicators Research*, 118(1), 415–432.
- Yap, F. D., & Artates, J. R. (2023). Financial Literacy Level of Dry Market Vendors. *Journal of Business and Management Studies*, 5(4), 1–5.