



The Effect of Financial Knowledge on Financial Behavior Mediated by Financial Attitude and Financial Self Efficacy on MSME Activities in Medan City During the Covid-19

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Abstract. This study aimed to examine and analyze the effect of financial knowledge on financial behavior mediated by financial attitude and financial self-efficacy directly or indirectly. The approach used in this study was a causal approach. The population, as well as the sample of this study that was taken through the saturated sample method, were all MSMEs actors in the Medan Tembung sub-district registered at the Office of Cooperatives for Micro, Small, and Medium Enterprises in the city of Medan, with as many as 95 MSMEs actors. The data collection techniques in this study employed documentation, observation, and questionnaire techniques. The data analysis technique in this study employed a quantitative approach using statistical analysis using the Outer Model Analysis test, Inner Model Analysis, and Hypothesis Testing. The data processing in this study used the PLS (Partial Least Square) software program. The results showed that Financial knowledge, attitude, and self-efficacy directly had a positive and significant effect on financial behavior.

Furthermore, Financial knowledge and attitude had a positive and significant impact on Financial self-efficacy. In contrast, Financial knowledge had a positive and significant effect on financial behavior indirectly mediated by financial attitude. Lastly, financial knowledge positively and significantly impacts financial behavior mediated by financial self-efficacy.

Keywords: Financial Knowledge · Financial Behavior · Financial Attitude · Financial Self Efficacy

1 Introduction

Micro, Small, and Medium Enterprises (MSMEs) are one of the vital drivers of the people's economy. Micro, Small, and Medium Enterprises (MSMEs) have an important role in a country's economic and industrial growth. A business entity, especially MSME, must make changes to increase its competitiveness. This is because many small and medium entrepreneurs started from family/home industries, so the system is not appropriately managed.

The subjects of this research are the actors or owners of micro, small and medium enterprises (MSMEs) in the city of Medan, where the ability to manage the finances of MSMEs in the city of Medan is still at an average level. Their success will impact not only on the progress of their own business but can also reduce unemployment and increase regional and national income. The development of MSMEs in Medan City is not matched by the development of their level of financial management. In addition, the low financial attitude of some MSME actors where many MSME actors in Medan City consider money the most important part of life compared to friendship and consider money is critical in their life. This can be seen from the results of the questionnaire conducted on MSME actors in the city of Medan below (Table 1).

Based on initial observations and a questionnaire on several MSME actors in the city of Medan and where many MSME actors do not have mass financial planning, it is scarce to find MSME actors who make budgets for their needs or record financial expenditures. This is supported by the results of the OJK Survey data, which states that Indonesia's financial literacy in 2020 was 40%. "This still requires a long struggle. More than half of Indonesians do not understand the financial sector properly. The large number of people who are not literate is an opportunity for fraudulent investors," said Eko in the ILUNI

Table 1. Results of a survey conducted on MSME actors in Medan City

No	Statement	Y		No		Total
		F	%	F	%	
1	Prepare financial plans	11	36,67	19	63,33	30
2	Make a needs budget	16	53,33	14	46,67	30
3	Make note on financial expenses	5	16,67	25	73,33	30
4	Can distinguish lifestyle with a desire	3	10	27	90	30
5	Save some money to invest	4	13,33	26	86,67	30
6	The money for shopping needs runs out not according to the specified time	13	43,33	17	56,66	30
7	Easy to feel satisfied with what has been achieved	26	86,67	4	13,33	30
8	Money is the most important part of life	28	93,33	2	6,67	30
9	Money can elevate life	23	76,67	7	23,33	30
10	Set aside money for urgent needs	9	30	21	70	30

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This study is a replication of research conducted by (Nisa, 2022) with the title, “The Effect of Financial Knowledge, Financial Attitude, Financial Efficacy, Income, Locus of Control, And Lifestyle on Financial Management Behavior of Generation Z”. Previous research used Financial Knowledge, Financial Attitude, Financial Self Efficacy, Income, Locus Of Control, and Lifestyle as independent variables. In contrast, this study examined the Effect of Financial Knowledge on Financial Behavior Mediated by Financial Attitude and Financial Self Efficacy. In this study, the researcher made Financial Attitude and Financial Self Efficacy variables as intervening or mediating variables.

2 Material and Methods

This type of research is survey research because it takes a sample from one population. This study used an explanatory research approach to explain the causal relationship between research variables and testing hypotheses. This research is included in the category of causal research using a quantitative approach. Causal research is research to see whether a variable that acts as a variable affects other variables that become these variables. Quantitative research is researching whose problems are not determined at the beginning, but problems are found after researchers go into the field, and if researchers look for new problems, then the problem is searched again until all problems have been answered.

Convergent validity consists of three tests: item reliability (validity of each indicator), composite reliability, and average variance extracted (AVE). Convergent validity measures how much the existing indicators can explain the dimensions. This means that the greater the convergent validity, the greater the ability of these dimensions to apply the latent variable.

The population is a generalization of the area consisting of objects or subjects with specific qualities and characteristics determined by the researcher to be studied and then concluded.

The population in this study were all MSME actors at The Medan City Micro, Small, and Medium Enterprises Cooperative Office consisting of 1,717 MSMEs.

According to [1], the sample is part of the number and characteristics of the population. If the population is large, and it is not possible for the researcher to study everything in it, for example, due to limited funds, manpower, and time, the researcher can use samples from that population.

As for determining the number/size of the sample in this study, only MSME actors assisted by the Department of Cooperatives for Micro, Small, and Medium Enterprises in Medan, using the slovin formula, then compiled the sample calculations as follows:

$$n = \frac{N}{1 + N(M)^2} \tag{1}$$

$$n = \frac{1.717}{1 + 1.717(0.1)^2} = 94, 50$$

where:

n = sample size

N = population size

M = percent of inaccuracy due to error

Sampling that can still be tolerated or desired, a maximum of 10%.

Based on the slovin calculation above, the number of samples in this study was 95 MSME actors assisted by the Office of Cooperatives for Micro, Small, and Medium Enterprises in Medan. This sampling used the Nonprobability Sampling method using the Incidental Sampling technique, where anyone who coincidentally meets a researcher can be used as a sample [1].

In the PLS (Partial Least Square) method, the analysis techniques carried out are as follows:

1. Analysis of the outer model

The outer model analysis is carried out to ensure that the measurement used is feasible to be used as a measurement (valid and reliable). In the analysis of this model, it specifies the relationship between latent variables and their indicators.

2. Inner Model Analysis

The inner model analysis (inner relations, structural model, and substantive theory) describes the relationship between latent variables based on substantive theory. The inner model analysis can be evaluated using R-square for the dependent construct, the Stone-Geisser Q-square test for predictive and t-test, and the significance of the coefficients of structural path parameters. In evaluating the inner model with (Partial Least Square), PLS starts by looking at the R-square for each latent dependent variable. Then the interpretation is the same as the interpretation of the regression. Changes in the value of the R-square can be used to assess the effect of.

3. Hypothesis Test

In testing the hypothesis, it can be seen from the t-statistical value and probability value. To test the hypothesis by using statistical values, for alpha 5%, the t-statistic value used is 1.96. So that the criteria for acceptance/rejection of the hypothesis are that H_a is accepted and H_0 is rejected when the t-statistic > 1.96 . H_a is accepted if the probability value is < 0.05 .

3 Result and Discussion

3.1 Analysis of Outer Model

Evaluation of the indicator measurement model includes checking individual item reliability, internal consistency or composite reliability, average variance extracted, and discriminant validity. The first three measurements are grouped in convergent validity.

Convergent Validity

In addition to looking at the R-square value, the PLS (Partial Least Square) model is evaluated by looking at the predictive Q-square value of relevance for the constructive model. Q-square measures how well the observed values are generated by the model and parameter estimates. A Q-square value greater than 0 (zero) indicates that the model has

predictive relevance, while if the Q-square value is less than 0 (zero), it indicates that the model lacks predictive relevance.

Reliability Item

Testing of item reliability (indicator validity) can be seen from Fig. 1 the loading factor value (standardized loading).

From the Fig. 1, all loadings are worth more than 0.5, so there is no need to set them aside. Thus, each indicator is valid to explain each latent variable, namely financial literacy, financial inclusion, financial attitude, Financial Self Efficacy, and MSME performance.

Composite Reliability

Table 2 shows that the composite reliability value for Financial Attitude is 0.878; Financial Behavior of 0.915; Financial Knowledge of 0.868; and Financial Self Efficacy of 0.880. The four latents obtained Cronbach’s alpha values above 0.6, so it can be said that all factors have good reliability or reliability as a measuring tool.

Average variance Extracted (AVE) shows in Table 3 describes the amount of variance that items can explain compared to the variance caused by measurement error. The standard is that if the AVE value is above 0.5, it can be said that the construct has good convergent validity. This means that the latent variable can explain the average of more than half the variance of the indicators.

Examination of the discriminant validity of the reflective measurement model assessed based on cross-loading and comparing the AVE value with the square of the

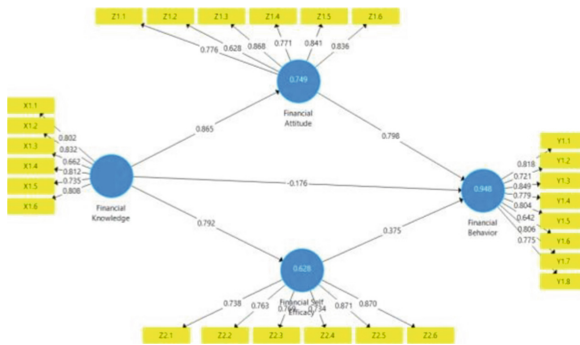


Fig. 1. Loading factor value

Table 2. Composite Reliability Result

Variable	Cronbach’s Alpha
Financial Attitude	0.878
Financial Behavior	0.905
Financial Knowledge	0.868
Financial Self Efficacy	0.880

Table 3. Average Variance Extracted (AVE) Result

Latent Variable	Average Variance Extracted (AVE)
<i>Financial Attitude</i>	0.625
<i>Financial Behavior</i>	0.603

correlation between the constructs. Good discriminant validity will be able to explain the indicator variable higher than explaining the variance of the other construct indicators.

The Table 4 shows that the value of discriminant validity or loading factor for each variable has a higher correlation with the variable compared to other variables. Likewise, with the indicators for each variable. This shows that the placement of indicators on each variable is correct.

3.2 Analysis of Inner Model

Test Goodness of Fit

Based on the Table 5, the results of the average commonalities are 1.178. This value is then multiplied by R2 and rooted. The calculation results show that the GoF value of 1.178 is more than 0.36, so it is categorized as a large GoF, meaning that the model is very good (has a high ability) in explaining empirical data.

Coefficient of Determination Test

From the Table 6, it is known that the effect of X, Z1, and Z2 on Y with an r-square value of 0.941 indicates that the variation in the value of Y can be explained by variations in the values of X, Z1, and Z2 of 94.1% or in other words, the model is substantial (good) and other variables influenced the remaining 5.9%. Furthermore, testing the effect of X on Z1 with an r-square value of 0.749 indicates that the variation in the value of Z1 can be explained by a variation of the X value of 74.9% or, in other words, the model is substantial (moderate), and other variables influenced the remaining 25.1%. X on Z2 with an r-square value of 0.628 indicates that the variation in the value of Z2 can be explained by variations in the X value of 62.8% or, in other words, that the model is substantial (moderate), and other variables influence the remaining 37.2% (Table 7).

3.3 Hypothesis Testing

Path Coefficient

Indirect Effect

The Influence of Financial Knowledge on Financial Behavior

From the hypothesis testing analysis results, it is known that financial knowledge has a significant effect on financial behavior, which is assessed by a path coefficient of 0.176. The probability value obtained is $0.005 < 0.05$, with a tcount value of 2,793, and a ttable value of 1.96, thus, $t_{\text{count}} > t_{\text{table}}$ ($2.793 > 1.96$), so H0 is rejected (Ha is accepted). This shows that the higher the knowledge about the finances of the

Table 4. Discriminant Validity

Indicator	<i>Financial Attitude</i>	<i>Behavior</i>	<i>Financial Knowledge</i>	<i>Financial Self Efficacy</i>
X1	0.691	0.615	0.803	0.609
X2	0.762	0.697	0.832	0.673
X3	0.518	0.530	0.663	0.599
X4	0.710	0.710	0.810	0.655
X5	0.590	0.565	0.73	0.537
X6	0.734	0.653	0.809	0.617
Y1	0.835	0.818	0.650	0.727
Y2	0.603	0.720	0.586	0.780
Y3	0.868	0.849	0.741	0.743
Y4	0.771	0.777	0.594	0.630
Y5	0.812	0.805	0.724	0.642
Y6	0.645	0.646	0.638	0.474
Y7	0.698	0.805	0.599	0.746
Y8	0.633	0.774	0.502	0.741
Z1.1	0.777	0.690	0.797	0.641
Z1.2	0.628	0.500	0.595	0.415
Z1.3	0.868	0.849	0.741	0.743
Z1.4	0.771	0.777	0.594	0.630
Z1.5	0.842	0.830	0.717	0.659
Z1.6	0.835	0.818	0.650	0.727
Z2.1	0.646	0.679	0.578	0.738
Z2.2	0.568	0.652	0.537	0.763
Z2.3	0.558	0.687	0.508	0.768
Z2.4	0.723	0.712	0.626	0.734
Z2.5	0.720	0.746	0.802	0.871
Z2.6	0.638	0.726	0.675	0.870

Medan City MSME actors, the better the financial behavior of Medan City MSME actors. Financial knowledge is knowledge and understanding of financial concepts and risks, as well as the skills, motivation, and confidence to apply the knowledge and understanding they have to make effective financial decisions, improve the financial well-being, and participate in the economic field (Table 8).

The Influence of Financial Attitude on Financial Behavior

This shows that the better the financial attitude of Medan City MSME actors, the better their behavior in managing finances, where an understanding of financial attitudes will

Table 5. Average Communities Index

Variable	AVE	R Square
<i>Financial Attitude</i>	0.625	0.749
<i>Financial Behavior</i>	0.603	0.941
<i>Financial Knowledge</i>	0.604	
<i>Financial Self Efficacy</i>	0.629	0.628
Average	0.615	0.773
GOLF	1.178	

Table 6. R² Result

Dependent	R Square	R Square Adjusted
<i>Financial Attitude</i>	0.749	0.746
<i>Financial Behavior</i>	0.941	0.939
<i>Financial Self Efficacy</i>	0.628	0.624

Table 7. Path Coefficient Results from Direct Effect

Hypothesis	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
<i>Financial Attitude -> Financial Behavior</i>	0.798	0.061	13.041	0.000
<i>Financial Knowledge -> Financial Attitude</i>	0.865	0.060	14.424	0.000
<i>Financial knowledge -> Financial Behavior</i>	0.175	0.063	2,793	0.005

help people to understand what they believe is related to their relationship with money so that people's behavior in managing their finances will be better.

Influence of Financial Self-Efficacy on Financial Behavior

From the hypothesis testing analysis results, it is known that financial self-efficacy has a significant effect on financial behavior, which is assessed with a path coefficient of 0.375. The probability value obtained is $0.000 < 0.05$, with a tcount value of 6.721, and

Table 8. Indirect effect

Hypothesis	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (IO/STDEV)	P Values
<i>Financial Attitude -> Financial Behavior</i>	0.798	0.061	13.041	0.000
<i>Financial Knowledge -> Financial Attitude</i>	0.865	0.060	14.424	0.000
<i>Financial knowledge -> Financial Behavior</i>	0.175	0.063	2,793	0.005
<i>Financial Knowledge -> Financial Self Efficacy</i>	0.792	0.084	9.405	0.000
<i>Financial Self</i>	0.375	0.056	6.721	0.000

a t-table value of 1.96, thus, t_{count} is greater than t_{table} ($6.721 > 1.96$), so H_0 is rejected.

This hall shows that Financial Self Efficacy can improve the financial behavior of Medan City SMEs. With the confidence possessed by the Medan City MSME actors in managing finances. Community's responsibility will be higher so that the financial behavior of the community will be better.

The Effect of Financial Knowledge on Financial Attitude

From the hypothesis testing analysis results, it is known that financial knowledge has a significant effect on financial attitude, which is assessed by a path coefficient of 0.865. The probability value obtained is $0.000 < 0.05$, with a t_{count} value of 14,424, and a t_{table} value of 1.96, thus t_{count} is greater than t_{table} ($14,424 > 1.96$) so that H_0 is rejected (H_a is accepted).

This shows that with a higher financial knowledge of Medan City MSME actors, the financial attitude of Medan City MSME actors will be better. In contrast, with personnel knowledge about their financial problems, in the form of various personal finance concepts, the financial attitude of Medan City MSME actors will be better.

The Effect of Financial Knowledge on Financial Self Efficacy

From the hypothesis testing analysis Result: it is known that financial knowledge has a significant effect on financial self-efficacy, which is assessed by a path coefficient of 0.792. The probability value obtained is $0.000 < 0.05$, with a t_{count} value of 9.405, and a t_{table} value of 1.96, thus t_{count} is greater than t_{table} ($9.405 > 1.96$) so that H_0 is rejected (H_a is accepted).

This means that financial knowledge can increase financial self-efficacy for MSME actors in the city of Medan. With the financial knowledge the Medan City MSME actors possess, the community will be more confident in managing their finances.

The Influence of Financial Knowledge on Financial Behavior Through Financial Attitude

From the hypothesis testing analysis results, it is known that financial knowledge has a significant effect on financial behavior through financial attitude, which is assessed with a path coefficient of 0.691. The probability value obtained is $0.000 < 0.05$, with a tcount value of 10.070, and a t-table value of 1.96, thus t_count is greater than t_table ($10.070 > 1.96$) so that H_0 is rejected (H_a is accepted).

This shows that the higher the level of financial knowledge of Medan City MSME actors, the financial attitude will be better so that the financial behavior will be better where the knowledge about financial problems that they have is getting better, the financial attitude will be better so that financial behavior will be better where the perpetrators are. Medan city MSMEs will be more careful in using the money they have, Medan city MSME actors will be more inclined to consider the problem of wants with needs.

The Influence of Financial Knowledge on Financial Behavior Through Financial Self-Efficacy

From the results of the hypothesis testing analysis, it is known that financial knowledge has a significant effect on financial behavior through financial self-efficacy, which is assessed with a path coefficient of 0.297. The probability value obtained is $0.000 < 0.05$, with a tcount value of 5.951, and a ttable value of 1.96, thus t_count is greater than t_table ($5.951 > 1.96$) so that H_0 is rejected (H_a is accepted).

This shows that financial knowledge can improve financial behavior through financial confidence in Medan City MSMEs, where the higher the level of one's financial knowledge, the higher the public's confidence in managing their finances so that one's financial management will be better. Individuals will understand and know about managing their finances. Therefore, individuals will be more confident in using their money and be more careful in using their finances when they prepare their financial plans.

4 Conclusions

Based on the research results and discussion stated previously, the following conclusions can be drawn.

1. Financial knowledge directly has a positive and significant impact on the financial behavior of Medan City SMEs during the Covid-19 pandemic.
2. Directly, the financial attitude positively and significantly impacts the financial behavior of Medan City SMEs during the Covid-19 pandemic.
3. Directly, financial self-efficacy has a positive and significant effect on the financial behavior of Medan City MSME actors during the Covid-19 pandemic.
4. Directly, financial knowledge has a positive and significant effect on the financial attitude of Medan City SMEs during the Covid-19 pandemic.

5. Directly, financial knowledge positively and significantly affects financial self-efficacy for Medan City SMEs during the Covid-19 pandemic.
6. Indirectly, financial knowledge has a positive and significant effect on financial behavior mediated by the financial attitude of Medan City MSME actors during the Covid-19 pandemic.
7. Indirectly, financial knowledge positively and significantly affects financial behavior mediated by financial self-efficacy for the Medan City MSME players during the Covid-19 pandemic.

4.1 Suggestion

Based on the conclusions above, the suggestions that can be given in this study include the following:

1. SMEs in Medan are expected to improve their financial knowledge by reading books, browsing the internet, or attending seminars related to the financial world to manage their finances and train in more responsible financial behavior.
2. Medan city MSME actors must apply a financial attitude, such as budgeting and recording expenses, saving regularly, and providing funds for unexpected expenses to do better financial planning.
3. Medan city MSME actors are expected to implement financial self-efficacy, such as; more confidence in managing their business, especially in developing their business by considering financial aspects.
4. Medan city MSME actors should prepare a weekly or monthly budget for receipts and expenditures. This will make the financial cycle of Medan City MSME actors regular, and Medan City MSME actors can do better financial planning in the future.
5. Medan city MSME actors with a high enough income are expected to increase awareness to carry out responsible financial behavior, for example: having savings for unexpected circumstances in the future, controlling themselves in using credit cards, and regularly paying loans that are owned.
6. To improve the financial behavior of MSME actors in Medan, the Medan City Micro, Small, and Medium Enterprises Cooperative Service should conduct training and financial socialization for MSME actors in Medan.
7. For further researchers, it is better to increase the independent variables that are still based on financial management other than those used in this study while still being based on further research.

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