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The Influence of Financial Literacy and Financial Attitude on Financial Management Behavior

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Abstract
This study aims to examine the influence of financial literacy and financial attitude on financial management behavior among first-semester students in Bandung. This qualitative research uses a primary data collection technique through questionnaires. The sample consists of 117 participants selected using purposive sampling. Structural Equation Modeling is employed in the data analysis, which includes testing the outer and inner models. The results indicate that financial literacy does not have a significant influence on financial management behavior. However, the other variable, financial attitude, has a significant impact on financial management behavior.

Keywords: Financial Literacy, Financial Attitude, Financial Management Behavior

1. Introduction

The ability to manage personal finances is becoming increasingly important in today's world. People need to plan for long-term investments for retirement and their children's education. They also need to decide on short-term savings for vacations, home payments, car loans, and other expensive items. Additionally, they must manage their own health and life insurance needs. Awareness of financial issues is becoming more critical with the development of recent trends, such as mortgage crises, shifts from defined benefit plans to defined contribution plans, and concerns about complexity in the overall financial products industry (Henager & Cude, 2019). Awareness of financial literacy issues and their adverse effects on our economy is growing. Fortunately, there is a resurgence of interest in financial education and related policies. Financial literacy, which evaluates the extent to which an individual understands and utilizes information related to personal finances, plays a significant role in managing daily finances more effectively. It helps individuals, for example, to more effectively manage debt or make wiser decisions in saving (Kalwij et al., 2019). Even teenagers must make choices regarding cell phone contracts, student loans, debit card usage, or clothing purchases. One of the factors driving increased interest in financial education issues or assessing financial capabilities is the continuous growth in individual and household debt levels (Opletalová, 2015). The only way to eliminate this phenomenon is by increasing financial awareness through

education, not only in schools but also in community classes, primarily implemented with government support. Integrating financial skills into elementary and secondary school education programs may be one way to prevent unhealthy debt burdens and to manage and create financial reserves. Including financial education in elementary and secondary school curricula is a significant step forward because prevention is considered the most effective action. Children learn financial literacy before they have their own financial responsibilities or bad experiences with money. They will only manage financial matters when they are adults, but by then, they already have an awareness of potential risks. Therefore, it can be assumed that the generation taking financial education courses will be more prepared for life, and only with them will the situation in this area improve significantly. Financial literacy is defined as a person's intelligence or ability to manage their finances effectively. Many people believe that financial literacy is designed to make it harder for them to enjoy the money they earn and to limit them. However, with financial literacy, individuals can use their financial resources properly to achieve their financial goals and enjoy life.

Previous research examining financial literacy and its relationship to how individuals manage their finances has been conducted in various countries. Amagir et al. (2020) examined financial literacy among high school students in the Netherlands. Their research produced several findings, including that involving parents in financial education can result in higher levels of financial literacy. Then, financial socialization factors, such as discussing money issues with peers and parents, are more strongly related to attitudes toward money and financial behaviors than financial education provided in high school. For young people involved in family financial decision-making, there is a positive impact on financial planning and thinking before acting. Financial experiences, such as receiving pocket money and having part-time jobs, are measured and proven to be related to financial knowledge. Cameron et al. (2014) conducted research examining financial literacy among high school students in New Zealand and identified associated factors. Financial literacy was found to be lowest among students who were financially poorer, had lower English language proficiency, and had lower mathematics abilities. However, relative poverty and lower English language proficiency did not affect financial literacy at the highest cognitive level, which is the ability to apply financial knowledge. Gilenko & Chernova (2021) found from their research that introducing appropriate financial literacy programs at early stages, such as in high school, can have a positive impact on the savings habits of Russian teenagers. This underscores the importance of introducing financial education early on to promote financial well-being and stability. This study also offers suggestions to financial authorities, institutions, and commercial banks in Russia. These suggestions can help in designing effective financial literacy programs and policies that address specific factors affecting the level of financial literacy and savings behavior of Russian teenagers. Then, research conducted by Mandell (2009) found that while financial education in high school and college only had a limited positive impact on students' financial literacy, it had beneficial effects on some aspects of financial behavior. Therefore, the inability to increase financial literacy scores should not be the sole reason to stop teaching personal finance courses to high school students. The success of a personal finance course should not only be assessed based on cognitive achievement test results, as its goal is to influence future behavior. Education alone is not enough to prevent consumers from making financial mistakes, considering that even the most educated and sophisticated investors can make mistakes. Further research on adults who graduated from high school in the last two decades will help to better understand the effectiveness of financial education in high schools.

Financial literacy, as described by Gilenko & Chernov (2021), refers to the awareness, knowledge, skills, attitudes, and behaviors needed to make informed financial decisions and achieve individual financial well-being. It consists of several components: financial knowledge, financial attitudes, and financial behaviors. Financial knowledge involves understanding key financial concepts and the attributes of financial products and services. Financial attitudes reflect individuals' beliefs and values regarding money, savings, and future planning. Financial behaviors refer to specific actions taken by individuals, such as budgeting, saving, and setting financial goals, which ultimately determine their financial well-being. Another understanding of financial literacy is also presented by Cameron et al. (2014), referring to the awareness, knowledge, skills, attitudes, and behaviors required for individuals to make wise financial decisions and achieve financial well-being. This involves the ability to understand and apply financial knowledge in various contexts, such as managing personal finances, making informed financial choices, and understanding available financial products and services. Additionally, according to Amagir et al. (2020), financial literacy is defined as a combination of financial knowledge, attitudes toward

money, financial self-efficacy, and financial behaviors that support the application of financial knowledge in everyday financial decision-making. It includes knowledge and understanding of financial concepts and risks, as well as skills, motivation, and beliefs to apply this knowledge to make effective decisions in various financial contexts. In addition to knowledge, financial literacy also includes attitudes toward money, financial self-efficacy (belief in the ability to manage money), and financial behaviors (actual financial actions). Financial literacy is defined in English by Noctor, Stoney, and Stradling (1992) as the 'ability to make effective judgments and take decisions regarding the use and management of money.' Schagen and Lines (1996, p. 91) operationalize this definition by proposing that financially literate individuals will possess a range of abilities and attitudes, including understanding key concepts important in money management such as knowledge of financial institutions, systems, and services, a range of skills, both general and specific, and attitudes that enable effective and responsible financial management.

Financial attitudes according to (Amagir et al., 2020) Financial attitudes refer to the beliefs and perceptions that individuals hold about money and its role in their lives. Attitudes toward money are influenced by factors such as power and prestige, financial planning, the belief that money is a symbol of success, and the importance of money in one's life. Attitudes toward money are considered one element of financial literacy, along with financial knowledge, financial self-efficacy, and financial behaviors. Financial attitudes are found to be related to financial behaviors and can influence individual financial decision-making. Additionally, according to Gilenko & Chernova, (2021) Financial attitudes refer to an individual's beliefs and values related to money, savings, and future planning. This affects whether individuals will take appropriate financial actions or not. Positive financial attitudes towards savings are expected to be formed through mastery of financial knowledge and values related to the importance of having a financial safety net and future planning. These positive attitudes are then expected to be reinforced through regular saving behaviors. On the other hand, negative financial attitudes can lead to actions that worsen an individual's financial well-being, such as delaying bill payments or lack of planning for future expenses. This paper highlights the importance of incorporating financial attitudes as a component of financial literacy and emphasizes its role in shaping individual financial behaviors.

Financial management behavior refers to the actions and decisions that individuals or households take in managing their finances. This includes how one manages their money, including how they earn, spend, save, and invest their money. Financial management behavior also includes how one manages debt, creates budgets, and sets financial goals. Financial management behavior can vary from one individual to another. It is influenced by various factors, including financial knowledge, attitudes toward money, personal values, financial circumstances, and past experiences. Good financial management behavior typically includes practices such as saving money for the future, avoiding unnecessary debt, budgeting, and investing wisely. Financial literacy policies and programs are often designed to help individuals improve their financial management behavior. Thus, according to these background the hypotheses of this research are:
H1: Financial Literacy has a significant effect on Financial Management Behavior
H2: Financial Attitude has a significant effect on Financial Management Behavior

2. Method

The data analysis technique used to discuss the issues in this research is Structural Equation Modeling (SEM). Structural Equation Model (SEM) is a statistical technique that allows testing a relatively complex set of relationships simultaneously (Ghozali, 2014). Path diagram aims to determine the influence of independent variables on dependent variables using mediating variables. The path diagram explicitly provides causal relationships between variables based on theory (Hardinis, 2019). Complex relationships can be built between one or more dependent variables and one or more independent variables. There may also be a variable that plays a dual role, as an independent variable in one relationship but a dependent variable in another, due to the presence of cascading causal relationships.

This study uses primary data obtained through questionnaires from first-semester students in Bandung City. The data analysis technique used is a quantitative analysis method assisted by SmartPLS software. Before hypothesis testing, this research conducted a preliminary test of the Outer Model consisting of reliability and validity tests.

Then, the Inner Model test was conducted on the structural model to test the relationships between latent constructs.

This study uses Financial Literacy and Financial Attitude as independent variables. Meanwhile, as the dependent variable, this study uses the Financial Management Behavior variable. The operationalization of the variables used is as follows:

Table 1: Operationalization of Variables

Variables	Definition	Dimension	Scale
Financial Literacy (X1)	A person's knowledge about financial instruments	• Basic Financial Knowledge • Savings • Loans • Insurance • Investments	Likert Scale
Financial Attitude (X2)	Financial attitude is defined as the state of mind, opinion, and judgment about finances.	• Saving • Budgeting • Frugality	Likert Scale
Financial Management Behavior (X3)	A way of managing the funds one has, which relates to an individual's responsibility in managing finances.	• Budget • Cash flow • Savings	Likert Scale

3. Results

In the Results section, summarize the collected data and the analysis performed on those data relevant to the discourse that is to follow. Report the data in sufficient detail to justify your conclusions. Mention all relevant results, including those that run counter to expectation; be sure to include small effect sizes (or statistically nonsignificant findings) when theory predicts large (or statistically significant) ones. Do not hide uncomfortable results by omission. Do not include individual scores or raw data with the exception, for example, of single-case designs or illustrative examples. In the spirit of data sharing (encouraged by APA and other professional associations and sometimes required by funding agencies), raw data, including study characteristics and individual effect sizes used in a meta -analysis, can be made available on supplemental online archives.

3.1 Outer Model Test

In the Outer Model assessment, Measurement is used to assess indicator variables that reflect a construct. Empirical analysis serves as the validity and reliability of constructs that reflect the parameters of latent variables based on theory and empirical studies. Several criteria used in performing data analysis techniques using SmartPLS include Convergent Validity, Internal Consistency, and Discriminant Validity tests (Hair, 2010). Provide dates defining the periods of recruitment and follow-up and the primary sources of the potential subjects, where appropriate. If these dates differ by group, provide the values for each group.

3.2 Convergent Validity Test

Convergent Validity is one of the tests that show the relationship between indicators and their latent variables. In measuring these latent variables, the magnitude of the loading factor value is determined, which is a value generated by each indicator. An indicator is considered valid if it has a value >0.7. The initial loading factor values obtained are as follows:

Table 2: Convergent Validity Test

Indicator	Financial Literacy (X1)	Financial Attitude (X2)	Financial Management Behaviour (Y)	Result
X1.1	0.625			Not Valid
X1.10	0.763			Valid
X1.2	0.643			Not Valid
X1.3	0.514			Not Valid
X1.4	0.802			Valid
X1.5	0.461			Not Valid
X1.6	0.476			Not Valid
X1.7	0.694			Not Valid
X1.8	0.715			Valid
X1.9	0.818			Valid
X2.1		0.689		Not Valid
X2.2		0.728		Valid
X2.3		0.775		Valid
X2.4		0.702		Valid
X2.5		0.738		Valid
X2.6		0.691		Not Valid
Y.1			0.722	Valid
Y.2			0.777	Valid
Y.3			0.638	Not Valid
Y.4			0.641	Not Valid
Y.5			0.784	Valid
Y.6			0.780	Valid

Based on the table above, it can be seen that the data is the initial processing data on the convergent validity values of each indicator before any changes or modifications. By looking at the loading factor values of each indicator, it can be determined whether the indicator is valid or not. Therefore, it can be found that indicators X1.1, X1.2, X1.3, X1.5, X1.6, X1.7 in the financial literacy variable are not valid. Then, in the Financial Attitude variable, it was found that indicators X2.1 and X2.6 are not valid. In the Financial Management Behavior variable, it was found that indicators Y.3 and Y.4 are not valid. Next, modifications were made to each invalid indicator by removing it from the model and recalculating. After recalculating, the loading factor values obtained are as follows:

Table 3: Convergent Validity Test

Indicator	Financial Literacy (X1)	Financial Attitude (X2)	Financial Management Behaviour (Y)	Result
X1.10	0.841			Valid
X1.4	0.839			Valid

X1.8	0.737			Valid
X1.9	0.861			Valid
X2.2		0.770		Valid
X2.3		0.810		Valid
X2.4		0.721		Valid
X2.5		0.755		Valid
Y.1			0.735	Valid
Y.2			0.833	Valid
Y.5			0.787	Valid
Y.6			0.780	Valid

Based on the data in the table above, it can be seen that the loading factor values of each indicator in each variable are above 0.7. Therefore, all of these indicators are considered valid as measures of their latent variables.

3.3 Discriminant Validity Test

Discriminant Validity is the value of the cross-loading factor that is useful for determining whether a construct has adequate discrimination by comparing the loading values on the intended construct with the loading values of other constructs.

Table 4: Discriminant Validity Test

Indicator	Financial Literacy (X1)	Financial Attitude (X2)	Financial Management Behaviour (Y)
X1.10	**0.841**	0.516	0.370
X1.4	**0.839**	0.477	0.474
X1.8	**0.737**	0.414	0.351
X1.9	**0.861**	0.525	0.450
X2.2	0.458	**0.770**	0.537
X2.3	0.454	**0.810**	0.621
X2.4	0.470	**0.721**	0.516
X2.5	0.428	**0.755**	0.648
Y.1	0.341	0.617	**0.735**
Y.2	0.441	0.627	**0.833**
Y.5	0.403	0.552	**0.787**
Y.6	0.404	0.599	**0.780**

In the table above, it can be seen that the cross-loading values for each indicator of each variable already have the highest cross-loading factor compared to the cross-loading values of other indicators of other variables. This indicates that each variable can be said to have good discriminant validity.

3.4 Validity and Reliability Test

The Outer Model is used to analyze the relationship between indicators and constructs. It is also used to ensure the validity and reliability of the data used. Testing is done using Composite Reliability (CR), Average Variance Extracted (AVE), and Cronbach's Alpha.

Table 5: Reliability and Validity Test

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Financial Literacy	0.838	0.892	0.674
Financial Attitude	0.763	0.849	0.585
Financial Management Behavior	0.791	0.865	0.615

The AVE values for all variables, ranging from Financial Literacy, Financial Attitude, to Financial Management Behavior, are above 0.5, which is acceptable. Meanwhile, the composite reliability values are at an acceptable level, which is above 0.7.

3.5 Structural Model Test (R Squared)

The testing of the structural model (inner model) is conducted to determine the strength of the relationships between constructs based on the significance values of the R-Square values of a research model. The R-Square value indicates how much the independent variables influence the dependent variable.

Table 6: R Squared

	R Square	R Square Adjusted
Financial Management Behavior	0.590	0.583

In the table above, it can be noted that the R-Square value of the Financial Management Behavior variable is 0.590. Therefore, it can be concluded that the Financial Management Behavior variable can be explained by Financial Literacy and Financial Attitude by 59%, while the remaining 41% is explained by other variables outside of this study.

3.6 Hypotheses Test

Hypothesis testing was conducted using the bootstrapping resampling method. This testing was done by examining the T Statistic values and P Values. The following are the calculation results obtained using the bootstrapping method.

Table 7: Hypotheses Test

Path Coefficient	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P Values
Literasi Keuangan	0.086	0.082	0.103	0.830	0.407
Sikap Keuangan	0.715	0.723	0.074	9.719	0.000

In testing using Smart PLS, statistical testing on each hypothesized relationship is done using simulation. Testing using bootstrapping is used to minimize problems with the non-normality of the research data, as well as the results of the testing. The following are the results of the bootstrapping:

1) The Influence of Financial Literacy on Financial Management Behavior
   The hypothesis testing results on the relationship between Financial Literacy and Financial Management Behavior show a path coefficient value of 0.086, indicating a positive relationship. Furthermore, in these hypothesis testing results, there are P values and T Statistics for each variable. For the Financial Literacy variable, the T Statistics value is 0.830 and the P Values is 0.407. Thus, it can be concluded that the Financial Literacy variable does not have a significant influence on Financial Management Behavior.
2) The Influence of Financial Attitude on Financial Management Behavior
   The hypothesis testing results on the relationship between Financial Attitude and Financial Management Behavior show a path coefficient value of 0.715, indicating a positive relationship. Furthermore, in these hypothesis testing results, there are P values and T Statistics for each variable. For the Financial Attitude variable, the T Statistics value is 9.719 and the P Values is 0.00. Thus, it can be concluded that the Financial Attitude variable has a significant positive influence on Financial Management Behavior.

4. Discussion

Based on the analysis and various tests that have been conducted, the next step is to discuss the results of the data processing in the study. The variables studied in this research are financial literacy as X1, financial attitude as X2, and financial management behavior as Y. Financial literacy is the knowledge and understanding of financial

concepts used to make financial decisions more effectively. With financial literacy, students will be able to allocate their finances well, thus avoiding financial risks. In testing using SEM, the financial literacy variable is concluded to not have a significant influence on financial management behavior. This result is contrary to several previous studies that found financial literacy significantly affects financial management behavior. This is an interesting point of concern because according to the concept, the higher a person's understanding of financial literacy, the better their financial management behavior should be. The research result ultimately proves that financial literacy does not always influence financial management behavior, indicating that there are other factors that can influence financial management behavior. This result also shows that the level of financial literacy is not always directly proportional to financial management behavior. This means that when someone has good financial literacy, it does not always result in good financial management. Furthermore, it was found that the financial attitude variable has a significant influence on financial management behavior. This research result is in line with previous studies that found financial attitude significantly affects financial management behavior. This is also consistent with the existing concept that financial attitude has a positive impact on financial management behavior. This means that the better someone's financial attitude is, the better their financial management behavior will be.

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References

Amagir, A., Groot, W., van den Brink, H. M., & Wilschut, A. (2020). Financial literacy of high school students in the Netherlands: knowledge, attitudes, self-efficacy, and behavior. *International Review of Economics Education*, *34*. https://doi.org/10.1016/j.iree.2020.100185

Cameron, M. P., Calderwood, R., Cox, A., Lim, S., & Yamaoka, M. (2014). Factors associated with financial literacy among high school students in New Zealand. *International Review of Economics Education*, *16*(PA), 12–21. https://doi.org/10.1016/j.iree.2014.07.006

Gilenko, E., & Chernova, A. (2021). Saving behavior and financial literacy of Russian high school students: An application of a copula-based bivariate probit-regression approach. *Children and Youth Services Review*, *127*(June), 106122. https://doi.org/10.1016/j.childyouth.2021.106122

Henager, R., & Cude, B. J. (2019). Financial Literacy of High School Graduates: Long- and Short-Term Financial Behavior by Age Group. *Journal of Family and Economic Issues*, *40*(3), 564–575. https://doi.org/10.1007/s10834-019-09626-2

Kalwij, A., Alessie, R., Dinkova, M., Schonewille, G., van der Schors, A., & van der Werf, M. (2019). The Effects of Financial Education on Financial Literacy and Savings Behavior: Evidence from a Controlled Field Experiment in Dutch Primary Schools. *Journal of Consumer Affairs*, *53*(3), 699–730. https://doi.org/10.1111/joca.12241

Mandell, L. (2009). The Impact of Financial Education in High School and College On Financial Literacy and Subsequent Financial Decision Making. *The American Economic Association*, 1–38. https://www.aeaweb.org/conference/2009/retrieve.php?pdfid=507

Opletalová, A. (2015). Financial Education and Financial Literacy in the Czech Education System. *Procedia - Social and Behavioral Sciences*, *171*, 1176–1184. https://doi.org/10.1016/j.sbspro.2015.01.229

Noctor, M., Stoney, S. and Stradling, R. (1992) "Financial Literacy", a report prepared for the National Westminster Bank, London

Schagen, S. and Lines, A. (1996) *Financial Literacy in Adult Life: a Report to the NatWest Group Charitable Trust* (Slough, Berkshire: National Foundation for Educational Research)