“Financial literacy and financial attitude on financial management behavior: An examination of the mediating role of the behavioral intention of students at private universities in Indonesia”

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Financial management behavior is an implementation action of planning and managing a person's financial resources, both in consumption and investment activities, which can show a person's characteristics in financial management based on the risks that arise so that each needs good control. This study aims to determine the impact of financial literacy and financial attitude on financial management behavior, mediated by the behavioral intentions of university students. The participants in this study are undergraduate students currently enrolled at prestigious private universities in Medan (North Sumatra, Indonesia). This study's population and sample consisted of students from the Faculty of Economics and Business at Private Universities in North Sumatra, Indonesia. Purposive and snowball sampling were used with data collection techniques, namely online questionnaires. The Likert scale measures indicators in responses to statements and questions. There were 150 respondents for this study's data collection. The findings of the study indicate that financial literacy influences financial management behavior and behavioral intentions (p < 0.05). Financial attitude affects financial management behavior (p < 0.05), financial attitude does not affect behavioral intentions (p > 0.05), and behavioral intention affects Financial Management Behavior (p < 0.05). Behavioral intentions do not mediate the effect of financial literacy on Financial Management Behavior (p > 0.05), and the effect of financial attitudes on Financial Management Behavior is not mediated by behavioral intentions (p > 0.05).

INTRODUCTION

The populace of Indonesia must learn how to optimize money for productive activities completely. Communities must comprehensively understand the financial services industry, encompassing banking, insurance, capital markets, pension funds, financing institutions, and mortgages. Every community must comprehend the financial services industry to increase financial literacy and how people can use or benefit from available financial products and services.

Managing finances is a fact that every human being must face in their everyday lives; a person must manage finances efficiently to balance income and spending, make ends meet, and avoid becoming entan-
gled in financial issues. Therefore, the inclusion of financial intelligence is vital in contemporary society, particularly in the present day. Financial intelligence refers to an individual’s ability to effectively handle and allocate their financial resources, with the overarching objective of attaining financial well-being as the ultimate aim. Everyone, especially students, must implement financial management because students are a component of civilization with a sizeable population. They will significantly impact the economy because soon, students will enter the workforce and become financially independent.

Financial education is used as a strategy to resolve the problem of the public’s need for more knowledge regarding financial management. Nonetheless, its implementation in Indonesia remains a significant challenge. Financial education is a comprehensive and ongoing process that empowers individuals to cultivate enduring financial strategies to achieve prosperity. Apart from that, to support financial education, the government has carried out efforts to produce and launch financial literacy books to provide knowledge to the public and students who occupy the school level. For students, financial literacy is very influential in managing finances. The higher the financial management knowledge and skills of students, the more prudent their financial decisions will be.

1. LITERATURE REVIEW AND HYPOTHESES

The theory of planned behavior is a modified version of the notion of reasoned action. Based on the concept of reasoned action, the likelihood of engaging in a particular behavior is determined by two essential factors: subjective norms and attitude. This idea is supported by empirical evidence in the scientific literature (Albarracín et al., 2001). Then Ajzen (2005) provides an additional cause, namely behavior control. Therefore, the theory was changed to a theory of planned behavior (Lin et al., 2018). This theory explains that individuals will behave due to the intention to do so. This theory is aimed at specific and universal individual behavior. Three key characteristics can be used to predict this intention: attitudes toward behavior, subjective norms, and behavioral control. Behavioral attitudes are all individual judgments about actions in behavior. A subjective norm is an individual’s belief about the desire of people who influence him to be willing to behave or not to behave according to the wishes of the critical person. Behavior control, namely individual views regarding their ability to behave (Wibowo et al., 2022). According to Kotler and Lee (2011), a person is most likely to perform a behavior if he has a positive response to that behavior. There is affirmation from people who influence him and confidence that he can do it accordingly.

Financial behavior refers to how an individual demonstrates financial responsibility within financial management. Financial behavior is how households or individuals manage financial resources, which include planning, budget savings, investment, and treatment (Rahman et al., 2021). A person’s financial behavior can be evaluated based on cash management, debt management, savings, and expenditure skills (Hilgert et al., 2003). Financial management behavior refers to an individual’s capacity to govern many financial activities effectively. This includes planning, budgeting, monitoring, managing, regulating, seeking, and safeguarding money resources (Hilgert et al., 2003). Financial behavior encompasses human behavior in managing monetary resources (Rahman et al., 2021). According to this definition, financial behavior encompasses all aspects of human conduct directly related to the administration of personal finances. After several years, Dew and Xiao (2011) investigated the development of financial behavior by establishing a more precise measurement scale for financial management behavior. Dew and Xiao (2011) propose that a person’s financial behavior can be evaluated by investigating four fundamental categories. Multiple degrees exist of consumption, financial flow management, debt management, and saving and investing. Several factors influence financial management behavior, namely (1) financial knowledge, (2) financial experience, (3) financial attitude, and (4) level of education (Adriani, 2021). In its broadest sense, financial literacy refers to the practice of social relations relating to information, language, and culture, including how a person communicates in society (Remund, 2010).
The definition of financial literacy is still being debated worldwide (Rai et al., 2019). According to Mihalčová et al. (2014), financial literacy means finance education, so one knows about managing finances. Chen and Volpe (1998) state that financial literacy refers to the aptitude and knowledge required to manage one’s financial resources to enhance future prosperity effectively. It is not just knowledge to manage finances, but it can also be implemented in the behavior of each individual to increase financial literacy. Financial literacy is understanding financial conditions and concepts and appropriately transforming that knowledge into behavior (Gunawan et al., 2023). Rahman et al. (2021) state that financial literacy, in its broadest sense, refers to the practice in social relations relating to information, language, and culture, including how a person communicates in society. Another opinion (Frisancho, 2020) describes two dimensions in measuring financial literacy: financial education and financial knowledge. Several indicators can be used as a benchmark related to financial literacy: 1) A person must be able to make a financial surplus; 2) Understand and know clearly how much to save and invest each month (Warsono, 2010). A study by Chen and Volpe (1998) states that financial literacy can be categorized into four distinct measures such as fundamental financial understanding, saving and borrowing, insurance, and investment.

Financial attitude refers to an individual’s cognitive and affective disposition, encompassing their thoughts, beliefs, and evaluations about financial matters (Talwar et al., 2021). This can show a person’s personality, such as considering money as an essential part of life, a determinant of quality of life, and honor, and it can even trigger a crime (Durvasula & Lysonski, 2010). A financial attitude develops and protects value through intelligent decision-making and resource management based on financial principles (Johnson & Kornelsen, 2021). A financial attitude refers to an individual’s cognitive and affective disposition towards financial matters, encompassing their mental state, subjective beliefs, and evaluative judgments. An individual’s financial attitude is a consistent and structured approach to managing financial resources. Financial might be considered a psychological inclination that manifests itself while analyzing recommended financial management strategies with various levels of agreement (Johnson & Kornelsen, 2021). Financial attitudes refer to the psychological inclinations exhibited when assessing suggested financial management strategies, which may be accompanied by varying levels of agreement or dissatisfaction (Owusu, 2021). According to Mien and Thao (2015), individual finances affect how much the individual spends and the attitude toward saving, hoarding, and spending money. Finance is a monetary measure of one’s thoughts, opinions, and judgments about the world in which one lives (Johnson & Kornelsen, 2021). Ameliawati and Setiyani (2018) found an association between one’s financial attitude and the severity of one’s financial issues. According to the previous definitions, a financial attitude is an attitude toward finance that may be seen in how people behave and make financial decisions.

The intention is one of the stages of the ethical decision-making process (Stöckli & Dorn, 2021). A behavioral intention is an individual’s motivation or planning that leads to specific financial attitudes, such as saving behaviors (Farrell et al., 2016). He also stated that an aim might be defined as a specific conduct that must be carried out regardless of the barriers, such as money and time. The intention is a component within the individual that refers to the desire to perform a behavior, while the behavior is the actual action of the desire to behave (Pomery et al., 2009). The intention is closely related to motivation, a person’s conscious or subliminal urge to take action with a particular goal in mind. Good intentions inspire a desire to do good (Cook & Artino, 2016).

Financial literacy and money management always go hand in hand. The better the person manages his finances, the better his financial literacy will be. One application of the concept of financial management is personal finance management. Financial security requires effective financial management, which includes planning, administration, and control responsibilities. Planning activities include actions to plan how the income received will be allocated (Ameliawati & Setiyani, 2018). Management is an activity that regulates/manages funds efficiently, whereas control is an activity that
evaluates if financial management is following what was planned/budgeted (Pollitt, 2001).

This study aims to determine the impact of financial literacy and financial attitude on financial management behavior, mediated by the behavioral intentions of university students. This study can identify areas where more robust variables contribute to improving financial management behavior by better understanding the interactions between these variables. The following are the theories that can be put out in light of the literature review and Figure 1:

Structural research models made research hypotheses as follows:


H4: Financial Attitude can improve Behavioral Intention.


2. METHODOLOGY

This study’s methodology is survey research based on sampling individuals from a single population. The present study employs an explanatory method to elucidate the causal relationship between the investigated variables and test the hypothesized relationships. This study is classified as causal research, employing a quantitative methodology. The study’s participants consist exclusively of undergraduate students enrolled in prominent private universities in North Sumatra, Indonesia.

This investigation included only students of the Faculty of Economics and Business from private universities in North Sumatra, Indonesia, such as Universitas Potensi Utama, Universitas Dharmawangsa, Universitas Medan Area, Universitas Labuhan Batu, Universitas Pembangunan Panca Budi, Universitas Islam Sumatera Utara, Universitas Muhammadiyah Sumatera Utara, Universitas Prima Indonesia, Universitas Asahan, and Universitas Simalungun. Purposive and snowball sampling were used with data collection techniques, namely online questionnaires. The criteria used in determining the sample were private university students in North Sumatra, Indonesia, who had received financial management courses. The Likert scale measures indicators in statements and questions asked to respondents. The number of respondent data collected was 165, with details of 15 respondents who did not pass the category of having received financial management courses. Hence, the data that could be used was 150 respondents.
This study exclusively recruits individuals of the Millennial generation (Generation Z) who are Medan citizens. The chosen methodology for analysis is the variance-based structural equation test, specifically the Partial Least Square (PLS) method, utilizing the Smart PLS 3.0 software. The Partial Least Squares (PLS) technique elucidates that the Structural Equation Model (SEM-PLS) can effectively capture latent variables that are not immediately observable using indicators, also known as manifest variables (Ghozali, 2014).

3. RESULTS

The composite or construct reliability measurement is typically conducted using Cronbach’s alpha and DG rho statistics, commonly employed in Principal Component Analysis (PCA). Constructs that exhibit Cronbach’s alpha values of 0.7 or higher and DG rho (PCA) values indicate excellent reliability as measurement instruments. A threshold of 0.7 or greater indicates a level of acceptability, while several 0.8 or higher signifies satisfaction (Nunnally & Bernstein, 1994).

Table 1. Composite reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
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<tbody>
<tr>
<td>Financial Literacy</td>
<td>0.947</td>
</tr>
<tr>
<td>Financial Attitude</td>
<td>0.915</td>
</tr>
<tr>
<td>Financial Management Behavior</td>
<td>0.958</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>0.919</td>
</tr>
</tbody>
</table>

Table 1 shows that the combined reliability values for the four research variables are 0.947, 0.915, 0.958, and 0.919, respectively. The composite reliability values of the four patents exceeded 0.7, indicating that all factors demonstrate satisfactory reliability as measurement instruments.

The average variance extracted quantifies the extent to which the variance in a set of items is attributable to the measured constructs instead of measurement mistakes. When the average variance extracted value surpasses 0.5. It indicates that the concept possesses favorable convergent validity. This finding indicates that latent variables can account for over 50% of the variability observed in the indicators.

Table 2. Average variance extracted

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average Variance Extracted</th>
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<tbody>
<tr>
<td>Financial Literacy</td>
<td>0.643</td>
</tr>
<tr>
<td>Financial Attitude</td>
<td>0.643</td>
</tr>
<tr>
<td>Financial Management Behavior</td>
<td>0.740</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>0.663</td>
</tr>
</tbody>
</table>

Table 2 indicates that the AVE value for Financial Literacy is 0.643, Financial Attitude is 0.643, and Financial Management Behavior is 0.740. While Behavioral Intention is 0.663. The four variables exhibit an Average Variance Extracted (AVE) exceeding 0.5, suggesting the concept demonstrates robust convergent validity. This implies that, on average, the latent variable can account for over 50% of the variance observed in the indicators.

This test aims to evaluate the discriminant validity of the reflective measurement model through cross-loading analysis and by comparing the Average Variance Extracted (AVE) value with the square of the correlation between constructs. The assessment of cross-loading involves examining the association between indicators and their constructs, as well as the constructs of other blocks. The discriminant validity of a high-quality construct is characterized by its capacity to explain a more significant proportion of the indicator variable’s variability compared to its ability to explain the variability in indicators of other constructs. The subsequent values represent the extent to which each indicator demonstrates discriminant validity.

Table 3 demonstrates that the loading factor value for each variable exhibits a stronger and more substantial relationship with its corresponding variable compared to the observed correlation with other variables. Similarly, the indicators of each variable are also of importance. This demonstrates that the positioning of indicators for each variable is accurate.

The coefficient of determination, commonly referred to as R-Square, quantifies the extent to which the variability in a variable’s value is attributable to another variable’s impact. It measures the proportion of variation that can be accounted for by the exogenous variable that affects the endogenous variable. This feature is beneficial for determining the model’s efficacy and discerning its quality as satisfactory or unsatisfactory (Hair Jr et al., 2016).
Table 4 displays the correlation coefficient between Financial Literacy, Financial Attitudes, and Financial Management Behavior, which is 0.488. The coefficient presented in this analysis indicates that the relationship between Financial Literacy and Financial Attitudes and Financial Management Behavior accounts for approximately 48.8% of the observed variance, indicating a statistically significant influence. The correlation coefficient between Financial Literacy and Financial Attitudes and Behavioral Intentions is 0.815, indicating a significant relationship between these variables. This coefficient indicates that Financial Literacy and Financial Attitudes account for approximately 81.5 percent of the variance in Behavioral Intentions. This implies that it possesses a powerful or formidable quality.

This assessment aims to ascertain the path coefficient of the structural model. This study aims to conduct a statistical analysis to determine the significance of observed correlations and evaluate the validity of the offered hypotheses. The current study classifies hypothesis testing into two discrete categories, namely, direct effects and indirect effects.

4. DISCUSSION

The study’s findings demonstrate a statistically significant association between financial literacy and financial management behavior, as evidenced by the p-value of 0.000, which falls below the conventional significance threshold of 0.05. Consequently, the level of financial literacy has a
significant effect on the financial management behaviors of individuals. This implies that a higher level of financial literacy and the capacity to use financial concepts such as income, expenses, assets, liabilities, and risk will result in responsible financial decision-making and efficient financial administration. Inversely, one’s financial management behavior will be worse and less effective the less fundamental one’s knowledge of finance is. This study found the same thing was done by Ameliawati and Setiyani, (2018) and Santoso and Sari, (2021), who stated that people with high financial literacy tend to influence financial management. This study is consistent with those by Putri et al. (2023), Gunawan (2019), Satoto and Budiwati (2020), Sari et al. (2020), and Gunawan et al. (2020), which state that good financial literacy tends to influence financial management behavior.

The study’s findings indicate a statistically significant association between Financial Literacy and Behavioral Intention, as evidenced by the P-value of 0.000, below the conventional significance level of 0.05. Therefore, financial literacy has significant effects on behavioral intentions. This implies that a person’s financial knowledge and behavioral intentions are inversely proportional. In other words, financial literacy has a direct influence on behavioral intentions. Financial literacy, commonly known as financial management knowledge, is a widely observed economic behavior nurtured and implemented throughout society for a prolonged duration. Acquiring financial literacy is vital for individuals of all backgrounds to mitigate potential financial challenges, and its significance is progressively escalating with time (Lusardi, 2019). Financial literacy can also be influenced by a person’s intention to behave, where a person’s reason for doing or not acting influences their decision to do or not do an action or activity. This study is consistent with prior findings by Setiawan et al. (2021), Jariyapan et al. (2022), and Satoto and Putra (2021), which state that Financial Literacy influences behavioral intentions.

The statistical analysis reveals a noteworthy correlation between Financial Attitudes and Financial Management Behavior, as evidenced by the P-value of 0.000, which falls below the predetermined significance level of 0.05. This implies that those who possess a more favorable financial disposition are more likely to exhibit greater wisdom when making choices about their financial management. On the contrary, those lacking a positive financial mindset are likely to exhibit poor financial management practices. These results are consistent with research performed by Satoto and Putra (2021) to conclude that Financial Attitudes impact financial management behavior. A financial attitude pertains to an individual’s cognitive and affective inclination, viewpoint, and evaluative position towards personal or organizational financial affairs. An individual’s financial attitude pertains to a methodical and organized approach to managing resources. Research results from Baptista and Dewi, (2021), Ratnawati et al. (2023), Prawitasari et al. (2022), and Firli and Hidayati (2021) concluded that financial attitudes influence financial management behavior. However, research results from van Deventer (2020) discovered a statistically non-significant association between individuals’ attitudes towards personal finance.

The research results show that the effect of the variable Financial Attitudes on Behavioral Intention has a P-value of 0.363 > 0.05, so it can be stated that the influence between Financial Attitudes on Behavioral intention is insignificant. This means financial attitude does not directly affect a person’s behavioral intention. If someone has an intention, this attitude is only sometimes implemented.

<table>
<thead>
<tr>
<th>Table 5. Direct and indirect effects</th>
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<tbody>
<tr>
<td>Path Between the variable</td>
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<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Direct Effect</td>
</tr>
<tr>
<td>H1 Financial Literacy → Financial Management Behavior</td>
</tr>
<tr>
<td>H2 Financial Literacy → Behavioral Intention</td>
</tr>
<tr>
<td>H3 Financial Attitude → Financial Management Behavior</td>
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<tr>
<td>H4 Financial Attitude → Behavioral Intention</td>
</tr>
<tr>
<td>H5 Behavioral Intention → Financial Management Behavior</td>
</tr>
<tr>
<td>Indirect Effect</td>
</tr>
<tr>
<td>H6 Financial literacy → Intention → Financial Management Behavior</td>
</tr>
<tr>
<td>H7 Financial attitude → Intention → Financial Management Behavior</td>
</tr>
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</table>
This study's findings indicate a relationship between financial attitude, it will not necessarily form an intention to behave in financial management (Adiputra, 2021). People build an attitude toward money based on their experiences and circumstances (Rai et al., 2019). Attitude says a lot about money, including how to protect one’s social status and how a person feels about money. People form ideas about money based on what they have done with it and how they have been treated (Rai et al., 2019). Financial attitude refers to an individual’s subjective viewpoint or conduct concerning money. Attitude is a significant factor in individual intentions toward modifying financial behavior within the Theory of Planned Behavior framework. Individuals’ attitudes are reflected in their distinct behaviors, which might indicate a preference or aversion toward specific outcomes. The findings of this investigation are inconsistent with those of She et al. (2023) and Yoopetch and Chaithanapat (2021) who concluded that financial attitudes influence behavioral intentions.

This study’s findings indicate a relationship between the variable of Behavioral Intentions and Financial Management Behavior. This is corroborated by a P-value of 0.000, less than the predetermined significance threshold of 0.05. Hence, a statistically significant relationship exists between behavioral intentions and financial management behavior. One of the ethical stages of decision-making is the intention. The intention is the desire, plan, determination, and promise made to oneself to do something. Individuals will act following their intentions, which can be understood. Individuals who can make prudent financial choices are less likely to encounter financial challenges in the future. An individual’s intentions can indicate their ability to effectively manage financial resources through organization, explicit planning, budgeting, auditing, and regulation. Contrarily, an individual’s behavioral intention plays a significant role in their decision to either participate in or refrain from carrying out a particular action or task. This study is similar to the one by She et al. (2023) who state that behavioral intention influences financial management behavior.

The statistical analysis indicates that the P-value for the indirect effect of Financial Literacy on Financial Management Behavior, mediated by behavioral intentions, is 0.452, which is greater than the conventional significance level of 0.05. Consequently, behavioral intention does not mediate between Financial Literacy and Financial Management Behavior. This implies that even if a person possesses a certain level of financial literacy if they do not have a positive intention to conduct, they are unlikely to be financially successful. Then, they are unable to determine an individual’s financial management behavior. In the domain of financial management, making decisions regarding the appropriate approach requires the acquisition of knowledge and the cultivation of specific attitudes. This study’s findings exhibit disparities compared to previous research (Mardianah & Iramani, 2021; Widiastuti et al., 2023), which concluded that financial literacy could improve financial management behavior through behavioral intention.

The statistical analysis reveals that the P-value for the indirect influence of financial attitude on Financial Management Behavior through behavioral intentions is 0.677, above the commonly accepted significance level of 0.05. Therefore, the behavioral intention has no moderating effect on the effect of financial perspectives on financial management behavior. This indicates that attitudes can indirectly influence financial management behavior via the intention variable, which serves as a mediator. In the presence of intent, an individual’s attitude can be implemented as behavior. Therefore, if a person has an excellent financial attitude, he will also exhibit outstanding financial management behavior. In determining financial attitudes, one can see how a person views money and spends for daily requirements or other economic conduct (such as how much money should be set aside to save or invest). Their attitudes can influence individuals’ financial conduct in their daily lives. These attitudes have the potential to impact long-term saving goals as well as future financial capacities. The intention is one of the ethical stages of the ethical decision-making process. Attitude can affect the intention to behave. At the same time, the intention to behave influences behavior. The results of this investigation differ from those of Mardianah and Iramani (2021) and Widiastuti et al. (2023) who concluded that financial attitudes impact financial management behavior through behavioral intention.

One primary constraint of this study is utilizing a non-probability convenience sampling technique for participant selection. It is essential to exercise
caution when interpreting the data obtained from convenience sampling. Furthermore, longitudinal studies have the potential to provide more precise and reliable findings when compared to the single cross-sectional methodology employed in the present investigation. It is recommended that future research endeavors encompass many ethnic groups to enhance the sample size and improve the representativeness of the findings concerning the broader population.

CONCLUSIONS


The findings of this study have the potential to assist financial institutions, including banks and investment management firms, in effectively identifying and catering to this specific market niche by providing accurate product information. Moreover, this study’s findings will provide valuable insights for future multidisciplinary research investigations. Furthermore, this study highlights several domains within the field of behavioral finance that would benefit from targeted training initiatives. An imperative responsibility that lies ahead for finance professionals is the development, implementation, and evaluation of financial training programs with a focus on their efficacy. The development of more effective programs to address shortcomings can be facilitated by the identification and comprehensive understanding of the significance and limitations associated with Generation Z’s financial behavior and attitudes in Indonesia.

AUTHOR CONTRIBUTIONS

Conceptualization: Sri Fitri Wahyuni.
Data curation: Sri Fitri Wahyuni, Radiman, Muhammad Shareza Hafiz.
Formal analysis: Jufrizen, Muhammad Shareza Hafiz.
Investigation: Sri Fitri Wahyuni, Jufrizen, Radiman, Muhammad Shareza Hafiz.
Methodology: Sri Fitri Wahyuni, Jufrizen.
Project administration: Sri Fitri Wahyuni, Radiman.
Supervision: Sri Fitri Wahyuni, Jufrizen, Radiman.
Validation: Muhammad Shareza Hafiz.
Visualization: Sri Fitri Wahyuni, Radiman, Jufrizen.
Writing - original draft: Sri Fitri Wahyuni, Muhammad Shareza Hafiz.
Writing - review & editing: Sri Fitri Wahyuni, Radiman, Jufrizen.

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