Improving Financial Well-being in Indonesia: The Mediating Role of Financial Behavior

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ABSTRACT

This research examined the collective impact of financial attitude, financial literacy, financial self-efficacy, internal locus of control, and external locus of control on financial well-being, focusing on the mediating role of financial behavior. The study employs an individual-level online survey. The relationships were investigated using PLS-SEM, this study provides an additional output of different tests using Mann-Whitney and Kruskal-Wallis. Financial well-being can be enhanced by increasing an individual's financial self-efficacy, financial behavior, and internal locus of control while decreasing the external locus of control. Furthermore, the indirect effect of financial attitude, financial literacy, and financial self-efficacy on financial well-being are significant, emphasizing financial behavior's importance. The findings help policymakers and industry leaders understand the most influential factors influencing financial well-being in Indonesia. Indonesian government encourages young people to improve their literacy index through public financial education. This research on financial behavior to achieve financial well-being is critical because it aligns with the government's goal of individual financial stability and soundness. As a result, they can maintain financial control to meet financial goals, deal with unexpected expenses and emergencies, absorb a financial shock, and choose to enjoy life.

Keywords: Financial Well-Being, Financial Behavior, Financial Literacy

1. INTRODUCTION

According to data from the Financial Fitness Index (2021) conducted by OCBC NISP bank, 86 % of the 1027 respondents aged 25-34 experienced a financial crisis or an unhealthy financial situation. According to OJK Fintech Lending data (2020), as many as 70.07 % of total respondents aged 19-34 years are entangled in online loans due to poor financial planning and well-being. Debt problems indicate that a person fails to deal with accumulated debt so that debt continues to increase, which will negatively impact financial well-being (Sullivan et al., 1989).

According to the third National Financial Literacy Survey (SNLIK) conducted by OJK (2019), the financial literacy of Indonesians in 2019 was still around 38.03 %, which is still relatively low in comparison to other ASEAN countries such as Malaysia (66 %), Thailand (73 %), and Singapore (98 %). Low financial literacy will result in inappropriate decision-making (OJK, 2016). Poor financial management can result in the behavior of people who are vulnerable to financial crises, and individual financial decisions will

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impact their future level of welfare (Mutlu, & Özer, 2021; Ningtyas & Wafiroh, 2021). On the other hand, financially capable individuals will make financial plans that lead to future living standards changes (Chong et al., 2021). Moreover, being financially competent can increase individual responsibility and careful decision-making to improve financial resilience and build a brighter future (Chong et al., 2021; Mutlu, & Özer, 2021).

Scholars have discovered that financial literacy influences financial management performance and behavior and that consumers with higher financial literacy have better financial behavior (Hilgert et al.,2003; Mitchell & Lusardi, 2014). On the other hand, money attitudes and usage vary according to the consumers' financial goals (Shih & Ke, 2014), and attitudes toward money management influence financial behavior (Henchoz et al.,2019). According to another study, most people with higher levels of literacy and attitude behave better (Fessler et al.,2019). Several studies have discovered that financial attitude is the antecedent of financial behavior (Potrich et al.,2016; Yong et al.,2018). Financial well-being is the descendant of financial behavior because improved behaviors increase financial well-being (Shim et al.,2009).

Financial self-efficacy is a person's belief in managing and managing finances concerning their ability to achieve financial goals (Asebedo & Payne, 2019). According to Kim (2000), financial self-efficacy is one of the most important factors of financial success because it improves financial management properly and appropriately. Instead of using general self-efficacy, this study will use financial self-efficacy to assess a person's self-efficacy toward financial behavior. Measurement of general self-efficacy is a broad metric that can be applied across industries, so it is not limited to finance. Meanwhile, the measurement will be more specific to see and investigate the characteristics of respondents in financial management.

Measuring financial behavior using a locus of control is crucial because it is a critical factor in identifying and improving one's financial behavior (Perry and Morris, 2005; Radianto et al., 2021). (Radianto et al., 2021; Siswanti and Halida, 2020) discovered a correlation between a person's internal locus of control and financial behavior; the higher the internal locus of control, the greater the sense of responsibility in managing their finances, but the external locus of control has a negative correlation; the higher the external locus of control, a person will only surrender to fate and destiny, resulting in incongruent financial behavior.

Given that the literature mentioned above reveals that financial behavior plays a significant mediating role with the five variables mentioned. Financial behavior is a core component of the conceptual framework. This is the driving force behind the current study. As a result, this paper aims to answer several research questions: (1) Do external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control all directly impact financial behavior? (2) Do the external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control all directly and indirectly impact financial well-being? (3) Does financial behavior mediate the influences of external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control on financial well-being?

To the best of the authors' knowledge, no study has specifically covered the relationships between external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control with financial behavior as a mediator on financial well-being, given the study's objectives. The study's findings will likely aid policymakers in developing financial education programs to improve individuals' financial well-being behavior. Thus, the current study's originality focuses on: (1) Direct effect of

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external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control on financial behavior; (2) Direct and indirect effect of external locus of control, financial attitude, financial literacy, financial self-efficacy, and internal locus of control on financial well-being; and (3) Analyzing of financial behavior's mediating role in the framework of financial well-being. This study aims to fill the research gaps mentioned above. The current paper investigates how identified factors influence individuals' financial well-being and the role of financial behavior as a moderator at the individual level.

2. LITERATURE REVIEW

2.1 Financial Well-Being

Financial well-being is achieved when a person can meet current and ongoing financial needs and obligations, feel secure about their future finances, and make decisions that allow them to enjoy their life, according to the Consumer Financial Protection Bureau (CFPB, 2015). When analyzing financial well-being, several factors must be considered, such as having control over their finances, such as control over day-to-day or monthly spending, being on track to meet financial goals, being able to meet unexpected expenses and emergencies, absorbing financial shock, and having financial freedom to make choices to enjoy life. Furthermore, financial well-being entails present and future financial security and financial freedom of choice. The theory of behavior, known as the theory of planned behavior, was first put forward by Ajzen (1991). This theory appears to predict and understand a person's behavior. Three things need to be understood in researching human behavior, according to Ajzen, namely the person's attitude, the subjective norm, and the perceived behavioral control.

This study's financial well-being indicators include objective and subjective measures (financial behavior). Individuals' financial behaviors and their financial well-being are linked. For example, good money and debt management habits should protect individuals when opportunities arise to spend beyond their means. These habits should predict a variety of indicators that signal financial well-being. Furthermore, because positive financial behaviors are associated with financial status to achieve well-being (Shim et al., 2009), one's intention to engage in a positive financial behavior is most likely associated with financial well-being.

2.2 Financial Behavior

Financial behavior is defined as a person's financial management behavior, such as how they manage and manage their cash, credit, and saving habits (Xiao, 2008). According to the OECD/INFE (2020), financial behavior is related to how individual organizes and manages savings and long-term planning, making thoughtful purchases, and keeping track of cash flow. How a person behaves towards their financial situation will affect their financial well-being. Someone with good financial behavior will tend to be effective in using money, managing, and controlling savings, investments, and paying bills on time (Hasibuan et al., 2017). Several previous studies (Chong et al., 2021; Radianto et al., 2021; Susan & Djajadikerta, 2017; Johan et al., 2021) have confirmed that financial behavior is one of the important components to measure whether a person is capable or not in managing and managing his finances. Individual involvement in financial products reflects how well they manage finances and are financially responsible by thinking about their

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future (Bandura, 1977). The more a person believes that he can manage finances well, the more it affects their behavior in managing finances.

Several previous studies have linked a person's financial behavior with financial literacy. Previous research (Chong et al., 2021; Widyastuti et al., 2020; Ningtyas & Wafiroh, 2021) shows that financial literacy significantly affects financial behavior. With a good understanding and knowledge of finance or having good financial literacy, financial behavior in managing and managing finances will achieve financial well-being. Another study on financial behavior on psychological factors was conducted by (Radianto et al., 2021), which states that self-efficacy and locus of control influence a person's financial behavior, with the better one's self-efficacy and internal locus of control, the greater a person's responsibility in managing finances.

2.3 Financial Literacy

Financial literacy, as defined by the Financial Services Authority (OJK) (2016), is "knowledge, skills, and beliefs that influence a person's attitudes and behavior to improve the quality of decision making and financial management to achieve financial prosperity.". According to the OECD (2016), financial literacy is a combination of awareness, skills, knowledge, and the ability to make decisions to achieve financially satisfactory conditions. According to Standard & Poor's Ratings Services Global Financial Literacy Survey (2014), financial literacy measures understanding basic financial concepts. Without an understanding of financial literacy, a person does not fully have adequate knowledge to make decisions related to financial management, with good financial literacy means that a person can be said to be financially proficient and could make choices related to financial products such as saving, investing, borrowing and others.

Several studies on financial literacy (Chong et al., 2021; Dai et al., 2021; Kartawinata et al., 2021; Sugiyanto et al., 2019; Widyastuti et al., 2021) confirm that financial literacy is critical in understanding a person's attitudes and behavior in managing their finances. Based on research conducted by (Ningtyas & Wafiroh, 2021) that financial literacy has a significant effect on the financial behavior of the millennial generation. Someone who understands the basic concepts of finance will tend to behave wisely in financial decisions. Furthermore, a field experiment on farmers in Rwanda (Sayinzoga et al., 2016) found that increasing a person's financial literacy leads to an increase in saving, a change in debt behavior, and a positive impact on the emergence of new businesses. Because financial literacy is one of the most important criteria for explaining changes in a person's financial behavior to achieve financial well-being.

2.4 Financial Attitude

Individuals' behavior is preceded by their attitude (Ajzen,1991; Yong et al.,2018). Numerous studies have shown that attitude reflects prognostic relationships with behavior (Hira, 2012), and that this relationship is direct and positive. On the other hand, financial behavior influences financial well-being. Financial behavior is one of the most important factors influencing one's level of financial well-being (Chen, et al., 2014). Because financial behavior follows financial attitude and precedes financial well-being, it falls between financial attitude and financial well-being. It emphasizes that attitude causes behavior, and behavior causes well-being; thus, financial behavior is a bridge between attitude and financial well-being.

Previous studies found that financial attitudes significantly impact financial behavior among young people (Radianto et al., 2020) youth financial behavior is influenced by their

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attitude toward money. A student's positive attitude toward finance and money can influence their financial behavior to achieve financial well-being. Moreover, According to Firli & Hidayati, (2021) financial attitude significantly influence how individual manage their financial behavior.

2.5 Financial Self-Efficacy

Bandura introduced this theory by carrying out social cognitive theory, one of which is self-efficacy. According to Bandura (1991), self-efficacy is a person's belief in his or ability to process and regulate self-functioning of events that occur in life. Akhtar (2008) also stated that, in general, self-efficacy is a person's belief in his abilities, especially since he has completed existing challenges and obstacles.

The importance of understanding one's behavior in making financial decisions will be able to know the right steps that can be taken to change one's behavior. The main factor influencing a person's behavior is self-efficacy, namely belief in one's ability to deal with situations wisely and adequately (Hira, 2010, p. 15). Although several psychological measures of self-efficacy are not valid and reliable in terms of financial behavior. Therefore, a recent study (Grable et al., 2010) stated that a scale that refers to the financial situation is needed in measuring a person's self-efficacy in finance. The self-efficacy research scale by Lown (2011) shows that financial self-efficacy can affect a person's financial behavior. According to Chong et al., (2021) research, financial self-efficacy is the most powerful factor influencing a person's financial behavior compared to financial literacy and self-coping.

Another study by Xiao et al. (2011) confirmed a positive relationship between self-efficacy and financial satisfaction and well-being. In addition, Farrell et al. (2016) also explained a significant positive relationship between financial self- efficacy and changes in one's financial behavior. Their research states that women with high self-efficacy will be able to improve their ability to manage financial management well. Then, previous research (Shim et al., 2009) showed a positive relationship between financial well-being and financial self-efficacy.

2.6 Locus of Control

The concept of locus of control in psychology was first coined by Julian Rotter (1966), which became one of the crucial aspects of measuring one's personality. Locus of control refers more to the individual's perception of something that happens or happens in his life. Rotter (1966) sparked a construct called locus of control reinforcement that bridges behavior and cognition in psychology. Rotter divides the locus of control into two parts, namely, the internal locus of control and the external locus of control. Internal locus of control is a person's belief that influences personal decisions and behavior, a belief in oneself that they are capable or incapable of doing or achieving something. The belief that their lives are determined by fate, destiny, and other external factors leads to a tendency to surrender to circumstances.

Several studies have stated that someone with an internal locus of control tends to be responsible and make appropriate financial decisions (Mutlu, & Özer, 2021; Noman et al., 2020). Mien and Thao (2015) also stated that someone with an internal locus of control will be able to manage his finances well and deal with financial problems. Conversely, individuals with a high external locus of control tend to depend on luck, opportunity, destiny, and fate so that they are more irresponsible for what happens to them (Zimmerman 1995). Research shows that self-perceptions such as locus of control are proven to

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influence a person's choices and behavior in finance and other fields (Hira & Maginda 1999). Research conducted by (Perrry & Morris, 2015; Kholilah & Irmani, 2013) states that the internal locus of control has a positive and significant effect on financial behavior. However, research conducted by (Gabrel et al., 2009; Ida & Dwinta, 2010) shows contradicting results that external locus of control has a negative effect on financial behavior. The previous studies are the basis for researchers to conduct locus of control. In this study, the locus of control will be differentiated into two categories, external and internal locus of control on financial well-being through financial behavior, to analyze and study further.

2.7 Hypothesis construction

Previous research has suggested a link between financial literacy and financial behavior (Chong et al., 2021; Widyastuti et al., 2021; Kartawinata et al., 2021; Sugiyanto et al., 2019). Financial self-efficacy is also linked to better financial behavior (Xiao et al., 2011; Farrell et al., 2016). Although there is debate, the locus of control can affect a person's behavior in both financial and non-financial areas (Hira & Maginda 1999). However, research by (Perrry & Morris, 2015; Kholilah & Irmani, 2013) shows that locus of control significantly impacts financial behavior. Shim et al. (2009) contend that financial behavior and attitude significantly impact achieving financial well-being.

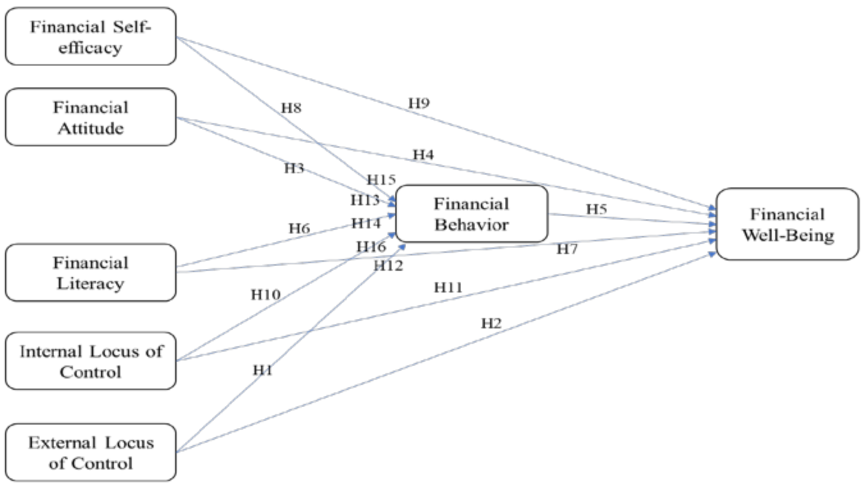

Figure 1: Conceptual Framework

Direct effect

H1: External locus of control negatively affects financial behavior
H2: External locus of control negatively affects financial well-being
H3: Financial attitude positively affects financial behavior
H4: Financial attitude positively affects financial well-being
H5: Financial behavior positively affects financial well-being
H6: Financial literacy positively affects financial behavior
H7: Financial literacy positively affects financial well-being
H8: Financial self-efficacy positively affects financial behavior
H9: Financial self-efficacy positively affects financial well-being
H10: Internal locus of control positively affects financial behavior
H11: Internal locus of control positively affects financial well-being

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Indirect effect
H12: The effect of external locus of control on financial well-being is mediated by financial behavior
H13: The effect of financial attitude on financial well-being is mediated by financial behavior
H14: The effect of financial literacy on financial well-being is mediated by financial behavior
H15: The effect of financial self-efficacy on financial well-being is mediated by financial behavior
H16: The effect of internal locus of control on financial well-being is mediated by financial behavior

3. METHODS AND DATA

The questionnaire was distributed online using google Forms and online paid survey using populix. A total of 439 respondents filled the online survey. Still, only 239 responses could be used or had valid responses to be processed using Smart PLS version 3.2.9 and the bootstrap procedure with 5000 resampling iterations. All the data were processed with Excel first and then had descriptive analysis with SPSS version 26.0. This study provides additional output using the Mann-Whitney test and Kruskal-Wallis rank to assess demographic factors on financial well-being. For the main analysis, this study used PLS-SEM (Partial Least Square - Structural Equation Modeling) to test the conceptual framework (Hair et al., 2017). Because the constructs were not normally distributed, PLS-SEM was used, and 239 respondents already fulfilled the requirement of the PLS-SEM minimum sample (Hair et al., 2019). This study uses latent variables were all the results of reflective indicators.

Based on the literature review, a questionnaire was initially developed to test the hypotheses in the proposed theoretical model. This technique of data collection is widely used by previous literature (Friedline & West, 2016; Potrich et al., 2016; Xiao & O'Neill, 2016). The questionnaire was divided into two sections: basic information about the respondent and indicators for the seven constructs of the proposed model. The financial well-being questionnaire was designed based on the instruments or indicators developed by CFPB (2015) in measuring financial well-being, which consists of 10 questions using a Likert scale (1 = Strongly Disagree and 5 = Strongly Agree). Potrich et al., (2016) used instruments or indicators to measure financial behavior, which consists of 11 questions on a Likert scale (1 = never and 5 = always), used to evaluate individual financial behavior related to financial management, credit card use, consumption spending, saving, and investing. This study also uses the instruments or indicators used by Potrich et al., (2016) in measuring financial literacy, which consists of 10 questions used to evaluate individual financial literacy related to basic and advanced knowledge about finance and investment (1 = incorrect answer, 5 = correct answer). The financial self-efficacy scale created by Lown (2011) consists of 6 questions using a Likert scale with categories (1 = Strongly disagree, 5 = Strongly agree). Financial attitude questions consist of 9 items adapted from Farrell et al., (2016) with categories (1 = Strongly disagree, 5 = Strongly agree). Rotter invented the locus of control scale (1975). Rotter uses 23 factors to cover various topics; thus, Ferguson (1993) has grouped 12 of Rotter's 23 items that precisely assess a person's financial control. This study employs a Likert scale with five categories (1=strongly disagree, 5=strongly

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agree), with six questions representing the Internal locus of control and six questions representing the External locus of control.

4. RESULTS

4.1 Descriptive statistics

Respondent demographics revealed that most respondents are female (69.5 %). Most respondents (86.8 %) are millennials, and half have bachelor's degrees (54.2 %). The majority (44.6 %) work as employees in government or private companies, with the remainder being unemployed (40.1 %). Regarding income or salary, most respondents (45.8 %) have a low salary of less than or equal to 2.5 million, followed by a medium low salary of less than 2.5 million (28.7 %). Most respondents own at least one investment product, such as gold, stocks, mutual funds, real estate, and so on (34.2%). The majority of respondents (70.8 %) were unmarried or single, with the majority residing in West Java (26.2 %) and Jakarta (21.2 %). Javanese (47.8 %) and Sundanese are the majority ethnicities (21.2 %). Half of those polled were already familiar with finance (51.9 %), and most respondents have a credit card (76.8%).

Table 1 Descriptive statistics

		Frequency	Percent			Frequency	Percent
Gender	Male	134	30.5	Marital Status	unmarried	311	70.8
	Female	305	69.5		married	124	28.2
Type of Generation	Gen X	11	2.5		divorce	4	0.9
	Millennial	381	86.8	Domicile	DKI Jakarta	93	21.2
	Gen Z	47	10.7		Banten	28	6.4
Education	Junior High School	2	0.5		West Java	115	26.2
	Senior High School	141	32.1		Central Java	29	6.6
	Diploma	24	5.5		Yogyakarta	11	2.5
	Bachelor	238	54.2		East Java	69	15.7
	Master	34	7.7		Sumatra	69	15.7
Occupation	unemployed, household mother	176	40.1		Bali & Nusa Tenggara	7	1.6
	Teacher, lecturer	13	3.0		Kalimantan	7	1.6
	Employee, government/private	196	44.6		Sulawesi	9	2.1
	Doctor	2	0.5		Maluku & Papua	2	0.5
	Entrepreneur	43	9.8	Ethnicity	Javanese	210	47.8
	Farmer	1	0.2		Sundanese	93	21.2
	Others	8	1.8		Batak	24	5.5
Salary	low (<2.5 million)	201	45.8		Madura	4	0.9
	medium low (2.5-4.9 million)	126	28.7		Chinese	20	4.6
	medium (5-7.49 million)	52	11.8		Betawi	14	3.2
	medium high (7.5-9.99 million)	17	3.9		Minangkabau	23	5.2
	high (>10 million)	43	9.8		Bugis	8	1.8
Expense	low (<2.5 million)	253	57.6		Malay	18	4.1
	medium low (2.5-4.9 million)	134	30.5		Banjar	2	0.5
	medium (5-7.49 million)	23	5.2		Bali	4	0.9

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	medium high (7.5-9.99 million)	13	3.0		Others	19	4.3
	high (>10 million)	16	3.6	Aware of Finance	No	211	48.1
Number of Investment product	No investment product	126	28.7		Yes	228	51.9
	One investment product	150	34.2	Credit Card	No	337	76.8
	Two investment products	80	18.2		Yes	102	23.2
	More than two investment products	83	18.9				

Source: own elaboration

4.2 Demographic factors associated with financial well-being

The findings revealed that demographic factors such as gender, generation, education, occupation, salary, expense, number of product investments, marital status, domicile, finance knowledge, and credit card ownership were related to the financial well-being score. The data shows male respondents had a higher financial well-being score ($p<0.05$). X-generation have higher financial well-being ($p<0.001$). Moreover, the data showed that respondents with a higher level of education have higher financial well-being scores. Respondents with master's degrees scored higher ($p<0.001$). The data revealed a significant difference in the financial well-being score of occupation; the mean score for those who worked as doctors was significantly different ($p<0.001$).

According to the data, respondents with monthly incomes greater than 10 million IDR have a higher financial well-being score ($p<0.001$). The data also includes the number of product investments; respondents with more than three types of financial product investments have higher financial well-being scores ($p<0.001$). The data also showed a significant difference in financial well-being scores for married status ($p<0.05$). Furthermore, respondents who lived in Banten had a higher financial well-being score ($p<0.05$). The data indicate that finance awareness significantly differs from those who have never learned about finance before ($p<0.001$). There is also a significantly different financial well-being score for those with credit cards ($p<0.05$). To conclude, the data found that ethnicity had no association with financial well-being scores ($p>0.10$).

4.3 Items measurement and goodness of fit

There are 58 questions in total, but some loading values were lower than the minimum, indicating that the questions cannot be used as an indicator for the variable. Hair et al. (1998) claim that the indicator is valid if the factor loading is ≥0.5. So, based on the factor loading, only 37 items remain that can be used for this study; the other items with a factor loading <0.5 were removed from the model. Table 3's factor loading value is the data after removing all items with a loading factor of <0.5.

This study used Cronbach's alpha, Composite Reliability, and Average Variance Extract to conduct validity and reliability tests (AVE). The validity and reliability analysis results show that all the statement items used to collect data met the requirements for validity and reliability. According to Dahlan et al. (2014), there are some criteria for which Cronbach's alpha is considered valid if 0.42-0.60 is quite reliable, 0.61-0.80 is reliable, and 0.81-1.0 is highly reliable. Furthermore, if the composite reliability is ≥0.7 (Nunnally and Bernstein, 1994) the items is also considered reliable. The items are valid if AVE ≥0.5

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(Hair et al., 1998). All the variables in this study are considered valid and reliable since they meet the minimum value requirement.

Table 2 Different test

Variable	Percent	Financial Well-Being scores mean	p-value	Variable	Percent	Financial Well-Being scores mean	p-value
Gender				Marital Status			
Male	30.5	3.272	**0.013*** **	unmarried	70.8	3.097	
Female	69.5	3.108		married	28.2	3.331	**0.004*** **
Type of Generation				divorce	0.9	2.575	
Gen X	2.5	3.727	**0.000*** **	Domicile			
Millennial	86.8	3.194		DKI Jakarta	21.2	3.220	
Gen Z	10.7	2.730		Banten	6.4	3.368	**0.004*** **
Education				West Java	26.2	3.251	
Junior High School	0.5	2.800		Central Java	6.6	3.103	
Senior High School	32.1	2.790		Yogyakarta	2.5	2.845	
Diploma	5.5	3.175		East Java	15.7	3.294	
Bachelor	54.2	3.284		Sumatra	15.7	2.925	
Master	7.7	3.815	**0.000*** **	Bali & Nusa Tenggara	1.6	2.957	
Occupation				Kalimantan	1.6	2.800	
unemployed, household mother	40.1	2.859		Sulawesi	2.1	2.411	
Teacher, lecturer	3.0	3.446		Maluku & Papua	0.5	3.150	
Employee, government/private	44.6	3.364		Ethnicity			**0.116**
Doctor	0.5	3.600	**0.000*** **	Javanese	47.8	3.174	
Entrepreneur	9.8	3.337		Sundanese	21.2	3.263	
Farmer	0.2	2.600		Batak	5.5	2.962	
Others	1.8	3.238		Madura	0.9	2.925	
Salary				Chinese	4.6	3.180	
low (<2.5 million)	45.8	2.861		Betawi	3.2	3.300	
medium low (2.5-4.9 million)	28.7	3.240		Minangkabau	5.2	3.191	
medium (5-7.49 million)	11.8	3.392		Bugis	1.8	2.488	
medium high (7.5-9.99 million)	3.9	3.876		Malay	4.1	3.344	
high (>10 million)	9.8	3.737	**0.000*** **	Banjar	0.5	3.250	
Expense				Bali	0.9	3.00	
low (<2.5 million)	57.6	2.996		Others	4.3	2.721	
medium low (2.5-4.9 million)	30.5	3.271		Aware of Finance			
medium (5-7.49 million)	5.2	3.622		No	48.1	3.027	
medium high (7.5-9.99 million)	3.0	3.354		Yes	51.9	3.279	**0.000*** **
high (>10 million)	3.6	3.950	**0.000*** **	Credit Card			
Number of Investment product				No	76.8	3.101	
No investment product	28.7	2.832		Yes	23.2	3.346	**0.003**
One investment product	34.2	3.184					
Two investment products	18.2	3.231					
More than two investment products	18.9	3.536	**0.000**				

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Note (Table 2): The data analysis used Mann-Whitney and Kruskal-Wallis test. Source: own elaboration.

Table 3 Factor loadings

Variables	Item Questions	Outer Loadings
Financial Literacy (FL)	1. Imagine the savings interest rate applied to your savings account is 6% per year, and inflation is 10% per year. After one year, how much can you buy with the money from the savings?	0.711
	2. Which of the following statements is true about bonds?	0.765
	3. Typically, which assets display the highest fluctuations over time?	0.713
	4. When an investor diversifies, his investment is divided among several different assets. Then the risk of losing his money will be?	0.747
Financial Behavior (FB)	1. I follow weekly and monthly planning for every expense I make	0.578
	2. I set long-term financial targets	0.803
	3. I save every month	0.768
	4. I have an emergency fund of at least three times my monthly income	0.681
	5. I save for long-term goals (buying a house, car, education)	0.758
	6. I make productive investments of any amount	0.749
Financial Attitude (FA)	1. It is important to control monthly expenses	0.683
	2. It is important to set financial targets for the future	0.702
	3. Saving every month is a must-do	0.730
	4. The way I manage money today will affect my future	0.713
	5. I need to have and follow a cashflow plan every month	0.776
	6. It is important to stick to the budget that has been made	0.698
	7. It is important to invest regularly to achieve long-term goals	0.727
Financial Self-Efficacy (FSE)	1. I can stick to my spending plans, even if unexpected expenses increase	0.730
	2. I can make progress towards my financial goals	0.790
	3. I can find solutions when faced with financial challenges	0.762
	4. I have confidence in my ability to manage finances	0.805
	5. I am not worried about running out of money in retirement because I have made a financial plan	0.740
Internal Locus of Control (ILC)	1. I become rich or poor depends to a large extent r on my abilities	0.606
	2. In the long run, people who take care of their finances very well stay rich	0.700
	3. I can usually protect my interests	0.846
External Locus of Control (ELC)	1. Regarding money, there is not much I can do for myself when I am poor because everything is determined by fate	0.752
	2. I don't permanently lucky because many things change depending on luck	0.864
	3. Being rich or poor is determined by fate	0.568
	4. Only those who inherit a lot of money can become rich	0.782
Financial Well-Being (FWB)	1. I could handle major unexpected expenses	0.735
	2. I have secured my financial future	0.724
	3. Due to my financial situation, I can always afford to buy or have things I want in life	0.699
	4. I can enjoy life because of the way I manage money	0.751
	5. I am not just getting by financially	0.753
	6. Giving gifts for weddings, birthdays, or other events won't make it difficult for my finances for the month	0.620
	7. I have money left until the end of the month or before the next pay period	0.721
	8. I am not behind with my finance	0.737

Source: own elaboration

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Table 4 Validity and Reliability test

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Remark
ELC	0.773	0.834	0.562	Valid and Reliable
FA	0.848	0.882	0.517	Valid and Reliable
FB	0.818	0.869	0.528	Valid and Reliable
FL	0.715	0.824	0.539	Valid and Reliable
FSE	0.824	0.876	0.587	Valid and Reliable
FWB	0.867	0.895	0.517	Valid and Reliable
ILC	0.600	0.764	0.524	Valid and Quite Reliable

Source: own elaboration

The AVE levels were ≥ 5, indicating an acceptable level of convergent validity. As shown in Table 3, the square root of AVE was greater than inter-construct correlations for discriminant validity (Kock and Lynn, 2012) (in bold, table 4). The diagonal elements (in bold) are the square roots of the difference in variance between the constructs and their measures (AVEs). Off diagonal elements represent correlations between the constructs. AVE's square root value is greater than the variable correlation value shown in the relevant row or column. As a result, each construct consistently meets the discriminant validity requirement.

Table 5 Discriminant Validity

	ELC	FA	FB	FL	FSE	FWB	ILC
ELC	**0.749**						
FA	-0.113	**0.719**					
FB	-0.135	0.320	**0.727**				
FL	-0.197	0.025	0.262	**0.734**			
FSE	0.064	0.312	0.498	0.069	**0.766**		
FWB	-0.153	0.127	0.654	0.209	0.573	**0.719**	
ILC	0.149	0.270	0.250	0.062	0.486	0.355	**0.724**

Source: own elaboration

There are some models of fit criterion, and the Standardized Root Mean Square Residual (SRMR) < 0.08 for the goodness of fit for the model (Hu & Bentler, 1999). This study's SRMR is 0.073; therefore, this model is considered fit. Another criterion is that NFI (Normal Fit Index) value is between 0-1, the closer to 1 the model is, the better. The NFI value in this study is 0.643, which is that the model is a good fit.

4.4 Results

Ensuring that no violations of the PLS-SEM assumptions have occurred, the analysis proceeds to the next step, which is the investigation of the structural model. The model explains 34.0% of the variation in financial behavior and 56.2% in financial well-being. Table 6 displays the model's retrieved results. Based on the theoretical framework, financial behavior is determined by financial literacy, financial self-efficacy, financial attitude, and locus of control which is internal and external. Indeed, it was found that financial behavior is the significance and positively impacted by financial attitude ($p<0.05$), financial literacy ($p<0.001$), and financial self-efficacy ($p<0.001$). As a result, sufficient evidence has been found to support H3, H6 and H8. Regarding the determinants of financial well-being, results revealed that financial well-being is significance and positively affected by financial behavior ($c=0.49$, $p<0.001$), financial self-efficacy

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(c=0.441, p<0.001) and internal locus of control (c=0.146, p<0.05). As a result, sufficient evidence has been found to support H5, H9 and H11. It is found that an external locus of control negatively impacts financial well-being (c=-0.145, p<0.05); thus, sufficient evidence has been identified to support H2. However, it is found that financial well-being is negatively impacted by financial attitude (c=-0.187, p<0.001).

Table 6 Hypotheses testing

Hypothesis	Path	Coefficient	stdev	t	p-values
Direct effect					
H1	ELC -> FB	-0.103	0.076	1.349	0.177
H2	ELC -> FWB	-0.145	0.063	2.296	0.022***
H3	FA -> FB	0.167	0.051	3.269	0.001***
H4	FA -> FWB	-0.187	0.043	4.375	0.000***
H5	FB -> FWB	0.490	0.061	8.083	0.000***
H6	FL -> FB	0.208	0.055	3.786	0.000***
H7	FL -> FWB	0.024	0.048	0.509	0.611
H8	FSE -> FB	0.441	0.063	6.947	0.000***
H9	FSE -> FWB	0.324	0.063	5.114	0.000***
H10	ILC -> FB	-0.007	0.071	0.093	0.926
H11	ILC -> FWB	0.146	0.052	2.802	0.005***
Indirect effect					
H12	ELC -> FB -> FWB	-0.050	0.038	1.318	0.188
H13	FA -> FB -> FWB	0.082	0.029	2.859	0.004***
H14	FL -> FB -> FWB	0.102	0.031	3.291	0.001***
H15	FSE -> FB -> FWB	0.216	0.038	5.643	0.000***
H16	ILC -> FB -> FWB	-0.003	0.035	0.093	0.926

Note: *** (significance level 5%) ELC, external locus of control; FA, financial attitude; FL, financial literacy; FB, financial behavior; FSE, financial self-efficacy; ILC, internal locus of control; FWB, financial well-being. Source: Own elaboration

The direct impact of financial attitude on financial well-being was negatively significant (c=-0.187, p<0.001). However, its indirect effect on financial well-being through financial behavior was positively significant (c=0.082, p<0.05). So, in the case of financial attitude, mediation exists but has a negative direct effect, called competitive mediation (Zhao et al., 2010). As a result, sufficient evidence has been found to support H13. The direct influence of financial literacy on financial well-being is insignificant (p>0.10), but its indirect effect on financial well-being was statistically significant (p<0.05). Therefore, in the case of financial literacy, the mediation effect existed, but there is no direct effect, called indirect-only mediation/full mediation (Zhao et al., 2010). As a result, sufficient evidence has been found to support H14, representing the best-case scenario because it demonstrates that our mediator fully adheres to the hypothesized theoretical framework. The direct effect of financial self-efficacy on financial well-being is significant (p<0.001), as is its indirect effect through financial behavior, which is referred to as complementary mediation because both effects are substantial and have a positive impact (Zhao et al., 2010). Thus, sufficient evidence has been identified to support H13.

5. DISCUSSION

The findings are discussed in the following paragraphs. To begin, the study confirms that financial attitude, financial literacy, and financial self-efficacy are important drivers of improved financial behavior in individuals. As a result, there is a consistent message for the

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government, educational institutions, and financial industry leaders to establish relevant policies and curriculum development to increase individuals' financial literacy. Financial literacy may improve their financial behavior and, as a result, their financial well-being. According to the current research findings, an appropriate financial attitude, financial literacy, and financial self-efficacy are critical for improving individuals' financial behavior in Indonesia. These findings are in line with previous research (Potrich et al.,2016; Shim et al., 2009). The current discovery adds to the existing body of knowledge. It reveals a positive relationship between financial literacy and financial behavior, consistent with previous research. For example, financial literacy is associated with financial behavior in managing financial status and debt (Shim et al., 2009), indicating better financial decision-making behavior. Other studies have found that financial literacy positively correlates with short-term and long-term financial behavior (Kim et al., 2019). Similarly, the positive relationship between financial attitude and financial behavior is consistent with the findings of other studies emphasizing the importance of financial attitude in influencing financial behavior (Çera et al., 2021). Furthermore, the previous research by Farrell et al., (2016) that financial self-efficacy significantly impacts financial behavior supports this finding.

The direct effect of external locus of control is negatively significant on financial well-being; this finding is similar to the previous research (Gabrel et al., 2009; Ida & Dwinta, 2010). However, the internal locus of control positively impacts financial well-being; this finding is supported by previous research (Perrry & Morris, 2015; Kholilah & Irmani, 2013). The direct effect of financial literacy on financial well-being, on the other hand, was insignificant. The findings should be discussed concerning the context in which the research was conducted. The Indonesian majority has a low financial literacy index (OJK, 2016), which affects their financial behavior. Financial literacy must be accompanied by good financial behavior (Chong et al., 2021; Widyastuti et al., 2020, which explains why financial behavior fully mediates financial literacy on financial well-being. In addition, the findings showed that financial self-efficacy has a direct or indirect effect that positively impacts financial well-being, supported by the previous research (Xiao et al., 2011; & Farrell et al., 2016).

The findings support the importance of financial behavior in mediating the effects of financial attitude, financial literacy, and financial self-efficacy on financial well-being. To the authors' knowledge, this is the first study to investigate such effects. As a result, financial behavior is critical for improving financial well-being and regulating the effects of financial attitude, financial literacy, and financial self-efficacy on financial well-being. The current study's overall findings addressed a previously identified gap. They supported direct and indirect empirical findings, such as financial concept learning improving financial literacy and behaviors. In the long run, it may result in increased financial well-being (Batty et al., 2015). This emphasizes the role of financial literacy through financial behavior on individuals' financial well-being, which is consistent with the current study findings. Another study found that financial behavior can assess a person's financial well-being (Shim et al., 2009).

Similarly, the current study discovered a link between the two. As a result, the findings of this study established that financial behavior significantly impacts individuals' financial well-being. This is consistent with other studies that have found that financial behavior is important in determining a person's financial capability to improve well-being (Chen et al., 2014). This study also found that external and internal locus of control are insignificant on financial behavior, directly and indirectly affecting financial well-being.

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However, the direct effect of external and internal locus of control are significant on financial well-being. The external locus of control was found to be significantly negative to financial well-being, similar to research conducted by (Gabrel et al., 2009; Ida & Dwinta, 2010). Moreover, the direct effect of internal locus of control is significantly positive on financial well-being; this finding is supported by (Perrry & Morris, 2015; Kholilah & Irmani, 2013).

6. CONCLUSION AND RECOMMENDATION

This study makes several contributions. The role of financial behavior in mediating the influence of financial attitude, financial self-efficacy, and financial literacy on financial well-being should be emphasized. Previous research has only looked at direct relationships between financial attitude, financial self-efficacy, financial literacy, and financial behavior. Our findings demonstrate the role of financial behavior in mediating financial well-being, providing more insight into how to improve well-being, particularly for the younger generation. As a result of employing the mediation model, this study recommends a more comprehensive framework for investigating the relationships between financial attitude, financial literacy, and financial self-efficacy on financial well-being by emphasizing the importance of financial behavior as a moderator variable.

Thus, for developing countries like Indonesia, financial attitude, financial literacy, and financial self-efficacy are important in improving individuals' financial well-being through financial behavior. As previously stated in the background, Indonesians have a low rate of financial literacy when compared to other ASEAN countries. Policymakers can design policies to achieve better results in equipping citizens with adequate financial literacy and skills needed in modern (Çera et al., 2020). The triple helix model (Y. Kim et al., 2012) can be helpful to in increasing individuals' financial literacy and well-being in this regard. According to this model, if the government, educational institutions, and industry align their policies and strategies can encourage individuals to participate in financial institutions to improve financial awareness.

There are some limitations to this study. The data was gathered by asking individuals for their opinion for themself of the selected indicators. As a result, their responses were particularly prone to recall (Xiao et al., 2014). Second, this paper only covers Indonesia, limiting its findings' generalizability to other countries. Nonetheless, replicating the conceptual framework used in this paper can help overcome these limitations. Future research can compare the financial well-being of different generations more specifically; earlier tests in this study found a significant difference in financial well-being between different types of generations.

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