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Predicting Financial Well-Being in Millennial Workers: A Test of the Theory of Planned Behavior and the Role of Financial Literacy

***Ignatius Jonathan, Eka Bertuah**

Department of Management, Faculty of Economics and Business, Universitas Esa Unggul, Bekasi, Indonesia

Correspondence*:
Address: Jl. Harapan Indah Boulevard No.2, Bekasi, Indonesia, 17214 | email: ign.jo97@student.esaunggul.ac.id

Abstract

Objective: This study investigates the influence of applying the Theory of Planned Behavior and Financial Literacy on building Financial Well-Being in millennial workers.
Design/Methods/Approach: This study used a purposive sampling method. The total number of respondents included in the study was 235, and the respondents were millennial workers who had become permanent employees. Data were analyzed using the Structural Equation Model (SEM).
Findings: The findings of this study showed that Financial Literacy has a positive effect on Attitude towards Saving. Financial Literacy also positively affects Financial Behavior and Financial Well-Being, both directly and indirectly. Subjective Norm has a positive impact on Attitude towards Saving, but Subjective Norm has not been proven to affect a person's Financial Behavior. Attitude towards Saving positively affects Financial Behavior and has a full mediation role in mediating Subjective Norm with Financial Behavior. The last results of this study also found a positive relationship between Perceived Behavioral Control and Financial Behavior and between Financial Behavior and Financial Well-Being.
Originality/Value: This research contributes to the study of financial well-being, with millennial workers as the primary focus. In addition, while both TPB and financial literacy have been used to predict financial behavior, their combined application to specifically predict the financial well-being of millennial workers offers a nuanced and potentially more comprehensive understanding.
Practical/Policy implication: Government agencies are advised to provide financial literacy education to children at an early age so they understand the importance of saving and are wiser in using their money. Thus, financial well-being can be achieved as expected.

Keywords: Financial literacy; Financial well-being; Theory of planned behavior

JEL Classification: G53, I31

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1. Introduction

Many people strive to improve their financial lives by making financial decisions, such as spending, saving, borrowing, etc., to grow their wealth and protect their resources to improve their financial status or well-being. Making financial decisions is not easy, as the world is experiencing rapid changes in the financial system due to global economic growth, technological advances, and a growing number of financial products and services. Those who cannot take responsibility for their financial behavior can easily find themselves in unfavorable economic situations (Sehrawat et al., 2021). This rapid change in the financial system requires every individual to understand financial literacy across all age groups (Garg & Singh, 2018).

The development of financial literacy in the United States from 2017 to 2024 consistently remained at around 50%, which shows that the level of financial literacy in the United States is still low (Yakoboski & Sticha, 2024). Lusardi & Oggero (2017) have found that millennials lack the basic skills to make sound financial decisions. Given the lack of development in financial literacy and the number of millennials still unable to make wise financial decisions, research on financial well-being is important and worth exploring.

Financial well-being can be considered a basis for assessing the relevance of financial literacy (Agyei et al., 2019), which is necessary in the financial decision-making process to achieve financial well-being (Potrich et al., 2016). Individuals who can make good financial decisions tend to engage in healthy financial behaviors, such as saving for the future and prioritizing expenses according to their needs (Chinen, 2012).

Based on the research Widjaja et al. (2020), financial literacy can influence financial behavior directly or indirectly through saving attitudes. Self-control also plays a vital role in a person's attitude towards saving (Andrew & Tharanika, 2017). Self-control is the ability of a person to regulate and restrain his or her desires, which is characterized by self-discipline and the ability to refrain from immediate gratification (Budiman & Yanty, 2022). Research conducted by Mohd et al. (2021) shows that a person's attitude towards saving is influenced by friends and parents, which means that subjective norms also play a role in determining a person's attitude towards saving. Financial behavior has been learned primarily from parents through observation and participation in financial experiences such as shopping (Pijoh et al., 2020). According to Yoopetch & Chaithanapat (2021), the influence of others on financial behavior is quite significant, showing that people around an individual can influence how they manage their financial activities. Managing finances as an implementation of financial behavior can increase awareness of financial management and promote financial inclusion, which will help achieve financial well-being (Stefani et al., 2022).

The Theory of Planned Behavior is a theory that explains how a person’s intentions lead to their behaviors (Sutton, 2014). Ajzen (1991) argues that intention alone is sufficient to predict an individual's behavior when the individual has a high degree of volitional control over the behavior. However, if there are problems with volitional control, such as the unavailability of opportunities and resources to perform certain behaviors, perceived behavioral control should be able to predict behavior independently (Kautonen et al., 2013). In addition, most studies using the Theory of Planned Behavior only examine the function of perceived behavioral control in explaining behavioral intentions (She et al., 2023). Kimiyagahlam et al. (2019) future research should also investigate the effect of perceived behavioral control on financial behavior. Therefore, our study explores the impact of perceived behavioral control on an individual’s financial behavior.

However, previous studies employing TPB in the context of financial behavior have shown conflicting results. Previous studies show that financial literacy positively relates to attitude towards saving (Morgan & Long, 2020; Widjaja et al., 2020), financial behavior (Allgood & Walstad, 2016; Grohmann, 2018), and financial well-being (Adam et al., 2021; Agyei, 2018; Pijoh et al., 2020). However, Widyastuti et al. (2016) showed an insignificant relationship between financial literacy and attitude towards saving, Taft et al. (2013) found that increasing financial literacy does not improve a person's financial well-being, and highlighted research gaps that warrant further investigation in the application of TPB.

With the gap in research findings, this study was conducted in more depth to explore financial well-being factors among millennial generation workers and also to see the relationship between the variables of perceived behavioral control and financial behavior, and the influence of subjective norms on financial behavior through attitude towards saving. While the original TPB only focuses on attitudes, subjective norms, and perceived behavioral control as determinants of behavior, this research adds financial literacy as an antecedent that influences the behavior, which in this case is financial behavior. Financial literacy offers a valuable perspective for evaluating effective and ineffective financial planning, and it can be integrated as an antecedent into the Theory of Planned Behavior to help explain a person’s intentions regarding financial behavior (Yeo et al., 2024). Ajzen et al. (2011) also suggested that a person’s knowledge level, which in this case is one’s level of financial literacy, may serve as a foundation for successful behavior, functioning independently from the TPB’s standard predictors while still influencing motivational factors (attitude towards saving, subjective norm, and perceived behavioral control). Additionally, the original TPB usually focuses on behavior as an outcome variable. Still, in this research, financial well-being was added as an outcome variable that reflects the long-term impact of financial behavior and financial literacy.

The purpose of this study is to measure various factors, such as financial literacy, attitude towards saving, subjective norm, perceived behavioral control, and financial behavior, that can affect the financial well-being of millennial workers. Younger generations today encounter significantly more complex financial decisions than previous generations (De Los Santos-Gutiérrez et al., 2022). Millennials are at a stage in life where their financial behavior can impact their long-term financial well-being. Navigating these decisions demands a solid understanding of financial concepts and applying that knowledge effectively to one's personal situation (Kim et al., 2019). As a result, this study explores millennials' financial literacy and behaviors. This research is expected to contribute to the theoretical understanding of each variable studied and may have positive managerial implications.

This study uses quantitative methods by collecting data from online questionnaires. The data collected were processed using the structural equation method (SEM) with LISREL 8.70. The contents of this article are as follows: the literature review and hypothesis development section discuss theories and the relation between variables. The method section describes the research method, data collection, and measurement. The following section discusses the result of structural equation method (SEM) testing, then summarizes this whole article in the conclusion section.

2. Literature Review and Hypothesis Development

2.1. Theory of Planned Behavior

The theory of planned behavior extends the Ajzen (1991) theory of reasoned action by adding the perceived behavioral control variable. This variable allows for more accurate predictions, especially when the behavior requires the skills, resources, and cooperation of others to carry out (Kisaka, 2014).

In the theory of planned behavior, it is said that human action is influenced by several considerations, namely beliefs about the consequences that may occur as a result of this behavior, which will result in a favorable or unfavorable attitude toward the behavior; beliefs about the normative expectations of others, which will result in social pressure or subjective norms; and finally beliefs about the existence of factors that can facilitate or hinder the performance of this behavior, which will form perceived behavioral control in the form of ease or difficulty that a person feels in performing a behavior (Ajzen & Fishbein, 2000).

This research will expand the original TPB framework by adding two key variables: Financial Literacy and Financial Well-Being. Financial Literacy refers to an individual's knowledge and understanding of financial concepts and products (De Los Santos-Gutiérrez et al., 2022). In this modified framework, Financial Literacy is assumed to influence a person's attitude towards saving, which will then affect the person's financial behavior. In other words, individuals who have higher financial literacy tend to have more positive attitudes towards healthy financial behaviors, feel stronger social pressure to do so, and feel more capable of doing so (De Los Santos-Gutiérrez et al., 2022). In this modified framework, financial behavior, which is formed from a person's attitude towards saving, is equally influenced by financial literacy, which is expected to affect financial well-being. In other words, good financial behaviors, such as saving and investing, are expected to improve financial well-being (Yakoboski & Sticha, 2024).

2.2. Financial Literacy on Attitude towards Saving

Financial literacy shows a person's ability to understand and consider their choices regarding financing, preparing for the future, and responding to unexpected situations (Rahman et al., 2021). It can also be a combination of awareness, objective financial knowledge, and confidence that can facilitate responsible financial behavior and significantly contribute to financial well-being (Sehrawat et al., 2021).

Attitude is a preference for something expressed by the degree of liking or disliking (Kisaka, 2014). According to economic theory, saving can be described as a behavior in which a portion of income is not used (Chudzian et al., 2015). From these two definitions, attitude towards saving could be defined as how a person views saving. Attitudes play a fairly significant role because attitudes can predict one's intentions and behavior (Setyobudi et al., 2015), and attitudes towards saving can help predict one's financial behavior.

Bayar et al. (2017) suggest that financial literacy can encourage individuals to use their money more wisely and save some of it. Considering millennials often lack fundamental financial decision-making skills, financial literacy is crucial as they navigate choices with significant long-term consequences (Lusardi & Oggero, 2017). Financial literacy positively impacts savings attitudes. This is supported by research conducted by Widjaja et al. (2020). Research by Morgan & Long (2020) also found a positive relationship between financial literacy and attitude towards saving. Based on the reasoning above, we propose:

H1: Financial Literacy has a positive effect on Attitude towards Saving

2.3. Subjective Norm on Attitude towards Saving

Subjective norms are pressures placed on a person by people considered important in their life, such as parents, spouses, friends, or teachers (Widyastuti et al., 2016). Subjective norms can also be a person's perception that an important person or group will approve and support a specific behavior. Due to growing global interconnectedness, millennials have become more dependent on their peers for guidance, information, and inspiration (Lusardi & Oggero, 2017). The social pressure is aimed at making the individual comply and behave according to the views that have been given (Ham et al., 2015). In other words, subjective norms imply the influence of the social environment on the decision-making process (Gayatri et al., 2013).

According to Widyastuti et al. (2016), parents, spouses, friends, or teachers are among the figures that could influence changes in a person's saving attitude, with parents having the most significant influence in developing and changing their children's saving attitudes (Azlan et al., 2015). The relationship between subjective norms and attitude towards saving has been studied by Widyastuti et al. (2016) and Widjaja et al. (2020), which showed a positive influence between subjective norms and saving attitudes. Based on the reasoning above, we propose:

H2: Subjective Norm has a positive effect on Attitude towards Saving

2.4. Financial Literacy on Financial Behavior

Financial behavior refers to individuals' actions to manage their financial resources to achieve economic well-being. These actions include saving, investing, credit management, and retirement planning (Sehrawat et al., 2021). Five things can be used to examine how financial literacy could affect a person's economic behavior: credit card use, investments, loans, insurance, and financial counseling (Allgood & Walstad, 2016).

Financial literacy can be used to predict and identify the behaviors a person needs to adopt appropriate financial behaviors, but financial literacy cannot guarantee that this will happen (Huston, 2010). According to Mahdzan & Tabiani (2013), the higher a person's financial literacy, the more it will positively influence their financial behavior, because with good financial literacy, they will understand more about their financial condition and plan their finances accordingly. Research conducted by Allgood & Walstad (2016) shows that financial literacy affects financial behavior, and research conducted by Grohmann (2018) shows that financial literacy has a causal relationship with financial behavior. Based on the reasoning above, we propose:

H3: Financial Literacy has a positive effect on Financial Behavior

2.5. Attitude towards Saving on Financial Behavior

Attitudes, which are generally associated with a person's internal psychology in terms of positive or negative evaluations, have a reasonably close relationship with financial behavior because a person's financial behavior can be seen from how the person gives his or her views or evaluations regarding saving attitudes (Shim et al., 2012). This attitude towards saving is expected to indicate healthy financial behavior (Shim et al., 2010). A study shows that millennials find it necessary to save, keep financial records, and only spend money on essential things (De Los Santos-Gutiérrez et al., 2022). Previous research conducted by Akben-Selcuk (2015) showed that positive attitude towards saving have a significant impact on healthy financial behavior. This research is supported by the research conducted by Ameliawati & Setiyani (2018), where the results show a positive relationship between attitude towards saving and financial behavior. Based on the reasoning above, we propose:

H4: Attitude towards Saving has a positive effect on Financial Behavior

2.6. Subjective Norm on Financial Behavior

Social pressure can control a person's view of financial behavior (Ali, 2021). As one of the most influential figures on children's behavior, parents have a role in teaching their children how to act using the values, beliefs, and knowledge they already have, so that children's attitudes and behaviors toward finance can be better formed (Jorgensen & Savla, 2010). When gathering information and making purchasing decisions, millennials are more likely to rely on recommendations from their peers and friends than those from experts (Lusardi & Oggero, 2017). Research on these two variables has been conducted by Bhatti & Akram (2020), Yoopetch & Chaithanapat (2021), which shows that subjective norms have a positive relationship with financial behavior. Based on the reasoning above, we propose:

H5: Subjective Norm has a positive effect on Financial Behavior

2.7. Attitude towards Saving as Mediator

Jufrizen & Ariza (2022) found in their research that attitude towards saving positively impacts financial literacy and behavior. According to Bose (2022), having good financial literacy is not enough to influence financial behavior because having a good attitude toward using that knowledge also significantly impacts financial behavior. Someone with a good attitude towards saving will also be more careful in managing their finances (Jufrizen & Ariza, 2022).

The presence of social influence on a person can cause a change in the person's attitude when assessing something (Azlan et al., 2015). This attitude can be used in determining financial behavior (Shim et al., 2012). From the above explanation, it can be concluded that subjective norms, especially from parents, can influence financial behavior directly or indirectly through attitude towards saving (Jorgensen & Savla, 2010). Based on the reasoning above, we propose:

H6: Attitude towards Saving mediates the effect of Financial Literacy on Financial Behavior

H7: Attitude towards Saving mediates the effect of Subjective Norm on Financial Behavior

2.8. Perceived Behavioral Control on Financial Behavior

Perceived behavioral control is a person's perception when evaluating a particular behavior as to whether it is difficult or easy to perform (Ali, 2021). A person can perform the behavior if he or she feels that he or she has the necessary motivation and ability to do so (Maichum et al., 2016). The higher the level of perceived behavioral control that a person has, the greater the willingness of a person to perform or not perform certain behaviors because perceived behavioral control directly impacts the individual's behavior (Ibrahim & Arshad, 2017).

According to Ajzen (1991) perceived behavioral control, it can influence a person's behavior in two ways: by influencing the intention to perform the behavior in question and by directly influencing the behavior. Millennials often rate their financial knowledge quite highly, sometimes displaying overconfidence in their financial abilities. They are generally seen as more self-assured, self-focused, and optimistic than earlier generations. Being overconfident could influence their financial behavior, which could affect them in a good or bad way (Rey-Ares et al., 2021). Research conducted by Tam et al. (2018) and Muniandy et al. (2021) showed that perceived behavioral control has a direct influence on behavior.

Furthermore, it was found that a person's behavior can be fully estimated using perceived behavioral control (Muniandy et al., 2021). This shows that people who engage in a particular behavior believe that they can be successful and can control the behavior (Kisaka, 2014). She et al. (2023) researched the relationship between perceived behavioral control and financial behavior; their research showed that perceived behavioral control has a positive relationship with financial behavior. Based on the reasoning above, we propose:

H8: Perceived Behavioral Control has a positive effect on Financial Behavior

2.9. Financial Literacy on Financial Well-Being

According to Agyei et al. (2019), financial well-being is a condition in which a person feels satisfied and comfortable with his or her financial situation. In contrast, Sehrawat et al. (2021) state that a person has achieved financial well-being when he or she can meet all his or her current and ongoing financial obligations. This condition can be met when an individual is satisfied with his or her ability to meet basic needs in life, which includes the ability to meet current expenses from current income, the ability to save, the ability to deal with financial problems, the ability to maintain stable debt, and overall satisfaction with his or her current financial condition.

Financial literacy can provide an interesting experience for individuals through increased savings, appropriate purchasing decisions, appropriate investments, and increased financial well-being, thus encouraging these individuals to engage in economic activities (Rahman et al., 2021). Remund (2010) suggests that financial literacy is related to an individual's competence in managing finances, which is supported by Hung et al. (2011) those who refer to financial literacy as the ability to use knowledge and skills to effectively manage financial resources so that long-term financial well-being and security can be ensured. These basic skills are still lacking among millennials, and they will need to teach them, as they will need them in order to achieve financial well-being (Lusardi & Oggero, 2017). Based on previous studies conducted by Agyei (2018), Pijoh et al. (2020), and Adam et al. (2021), financial literacy tends to affect financial well-being. Based on the reasoning above, we propose:

H9: Financial Literacy has a positive effect on Financial Well-Being

2.10. Financial Behavior on Financial Well-Being

Brüggen et al. (2017) define financial well-being as the perceived ability to maintain and anticipate a desired standard of living and financial freedom. According to Adam et al. (2021), financial well-being can be viewed subjectively and objectively. A person's income is a subjective measure of financial well-being, where those with low income and financial difficulties have a higher life risk (Arber et al., 2014). Objectively, three parameters can significantly impact financial well-being: saving, spending restraint, and not borrowing money for daily expenses (Adam et al., 2021).

Financial behavior can be interpreted as how a person manages his or her finances (Yoopetch & Chaithanapat, 2021). This ability to manage money is essential for a person to achieve financial well-being and be successful in life (Falahati et al., 2012). The ability to make sound financial decisions is also associated with a reduced likelihood of encountering financial challenges and a propensity to exercise financial responsibility, as evidenced by the tendency to prioritize essential expenditures over discretionary ones (Chinen, 2012). It makes sense that financial behavior can improve financial well-being (Pijoh et al., 2020). According to Brüggen et al. (2017), several behaviors can affect financial well-being, namely financially destructive behaviors, healthy financial behaviors, and behaviors that can adjust finances to their life situation. The financial behaviors of millennials are of particular concern, as they tend to exhibit more negative financial behaviors than previous generations (Kim et al., 2019). For example, millennials report spending more than they earn (Mottola, 2014). Someone who can adapt their finances and prevent long-term problems will find it easier to achieve financial well-being (Brüggen et al., 2017). Based on the research conducted by Gutter & Copur (2011) and Rahman et al. (2021), shows a positive relationship between financial behavior and financial well-being. Based on the reasoning above, we propose:

H10: Financial Behavior has a positive effect on Financial Well-Being

2.11. Financial Behavior as Mediator

According to Falahati & Paim (2011), financial literacy is one of the important factors in improving financial behavior, which in turn can improve personal financial well-being. The findings of Setiyani & Solichatun (2019) show that financial literacy affects financial well-being, both directly and indirectly through financial behavior. Based on the reasoning above, we propose:

H11: Financial Behavior mediates the effect of Financial Literacy on Financial Well-Being

Based on the eleven hypotheses proposed above, the conceptual model in this study is presented in Figure 1.

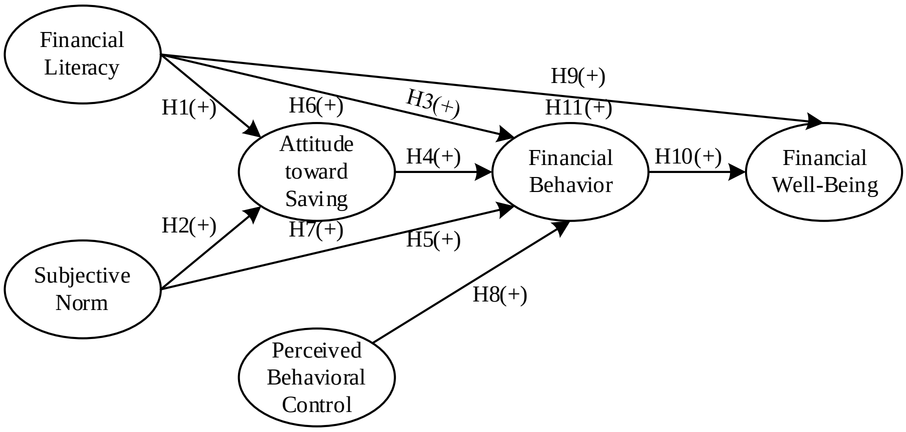

Figure 1. Research Model

3. Method

3.1. Research Method and Data Collection

The data needed for this research were collected through an online self-reported questionnaire created using Google Forms. The population in this study is Millennial Generation workers (ages 28 to 43). The reason is that workers who live in these areas usually have sufficient access to information because they are in big cities. Also, young workers usually have pretty good financial literacy (Widjaja et al., 2020). In addition, based on the results of the National Survey of Financial Literacy and Inclusion in 2022 (SNLIK, 2022), Jabodetabek residents have a high index of financial literacy and financial inclusion. Moreover, the many residents and workers in the Jabodetabek area (BPS, 2025) can facilitate and speed up the data collection process.

This study uses a purposive sampling technique with the following criteria: (1) working in the area of Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek); (2) millennial generation who have become permanent employees in a company. According to Hair et al. (2011), 5 to 10 times the indicators used in the study can be used when determining the sample size with an unknown population size. Thus, this study uses 5x47 indicators, which equals 235 respondents. The sample was obtained from millennial workers with socio-demographic characteristics consisting of gender, age, place of residence, employment status, income status, and most recent education. This study is quantitative, and the data were analyzed using the Structural Equation Model (SEM) with LISREL 8.70.

3.2. Measurement

This study measures six variables, namely financial literacy, attitude toward saving, subjective norm, financial behavior, perceived behavioral control, and financial well-being, which are adopted from previous research. The financial literacy variable is measured using 12 statements adopted from Widyastuti et al. (2016). The attitude toward saving variable is measured using six statements adopted from Chudzian et al. (2015). The subjective norm variable is measured using six statements adapted from Widyastuti et al. (2016). The financial behavior variable is measured using 10 statements adopted from Rahman et al. (2021). The perceived behavioral control variable is measured using five statements adopted from She et al. (2023). Eight statements were adopted from Rahman et al. (2021), measuring the financial well-being variable. The measurement used in this study is a four-point Likert scale of 1 (strongly disagree) to 4 (strongly agree). The total number of questionnaire statements adopted is 47 items, which can be seen in more detail in Table 1.

Table 1. Item Measurement

Variable	Dimension	Item	Source
Financial Literacy	Extrinsic Factor	FL1: I verify the accuracy of the transactions that I have made FL2: I maintain a record of my transactions FL3: I check my bank statements for discrepancies on a regular basis FL4: I balance my checkbook carefully FL5: I will prepare myself to be able to manage my finances for my retirement	Widyastuti et al. (2016)
	Intrinsic Factor	FL6: I can use the skills that I have to make financial decisions FL7: I can use the resources that I have to make financial decisions FL8: I can use the knowledge that I have to make financial decisions FL9: I can make effective and informed financial decisions FL10: I have the ability to differentiate financial decisions FL11: I can discuss financial matters with confidence FL12: I understand financial terms and concepts	
Attitude towards Saving	Favorable Attitude	ATS1: I feel better when I save money ATS2: I feel that saving money is the current trend ATS3: I feel secure when I save money ATS4: Saving money is about good management	Chudzian et al. (2015)
	Unfavorable Attitude	ATS5: Saving is only for the poor ATS6: Saving means constant sacrifice and simplicity	
Subjective Norm	-	SN1: My parents think it is important to save money every month for unexpected expenses SN2: My friends think it is important to save money every month for unexpected expenses SN3: People I consider important or whose opinions I respect think it is important for me to save regularly SN4: People close to me expect me to set aside my income regularly SN5: People close to me are in the habit of living frugally SN6: People close to me are in the habit of saving regularly	Widyastuti et al. (2016)
Perceived Behavioral Control	-	PBC1: I am confident that I have a financially secure retirement plan in place. PBC2: I am able to control my desires according to the priority of the needs that I am experiencing PBC3: Financial planning for retirement is easy for me PBC4: I can take control of my finances while staying focused on the security that I can enjoy in retirement PBC5: It is up to me to plan and save for retirement	She et al. (2023)
Financial Behavior	-	FB1: I have some money set aside for my retirement FB2: I have a plan to achieve my financial goals FB3: I set aside money to save FB4: I have a weekly or monthly budget that I try to stick to FB5: I have to cut my living expenses FB6: I will have financial problems if I don't have enough money FB7: I can afford to buy what I want to buy FB8: I spend more money than what I have	Rahman et al. (2021)

Variable	Dimension	Item	Source
		FB9: I won't be able to afford to do the things that I love if I don't have enough money FB10: I am more concerned about financial security than the amount of savings in my account	
Financial Well-Being	-	FWB1: I feel satisfied with my personal finances FWB2: I think my current financial situation is good enough FWB3: I feel confident about my retirement plans FWB4: If I have to borrow money, I will think about it very carefully FWB5: I will be able to get money to pay for emergencies FWB6: I will be borrowing money in accordance with my current financial needs FWB7: Even if I have to take out a loan, I don't want to complicate my finances in the future. FWB8: For me, it's better to put off unnecessary expenses than to take out a loan	Rahman et al. (2021)

4. Result and Discussion

4.1. Respondent Profile

Table 2 shows the demographic analysis of respondents based on the 235 samples obtained. Out of a total of 235 respondents, 58% were male and 42% were female. Most of the respondents were married, which amounted to 72%, and the educational level of respondents is dominated by the bachelor's level (69.8%). As for the job, 82.6% worked as private employees. The majority of respondents have a monthly income of less than Rp 10,000,000 (55.7%) and also have monthly expenses of less than Rp 10,000,000 (80.5%) and monthly savings of less than Rp 5,000,000 (77.9%).

Table 2. Respondent's Demography

Profile	Classification	Total	Percentage
Gender	Male	136	58%
	Female	99	42%
Education	High School	32	13.6%
	Diploma	18	7.7%
	Bachelor	164	69.8%
	Master	21	8.9%
Marital Status	Married	169	72%
	Not Married	66	28%
Job	Civil Servant	28	11.9%
	Private Employee	194	82.6%
	Entrepreneur	13	5.5%
Monthly Income	< Rp 10.000.000	131	55.7%
	Rp 10.000.000 – Rp 30.000.000	87	37.1%
	> Rp 30.000.000	17	7.2%
Monthly Expenses	< Rp 10.000.000	189	80.5%
	Rp 10.000.000 – Rp 30.000.000	45	19.1%
	> Rp 30.000.000	1	0.4%
Monthly Savings	< Rp 5.000.000	183	77.9%
	Rp 5.000.000 – Rp 20.000.000	51	21.7%
	> Rp 20.000.000	1	0.4%

4.2. Measurement Model

The first-order Confirmatory Factor Analysis (CFA) approach is used to test the measurement model in this study. The first level (first order) shows the relationship between the indicators and their variables. Based on the measurement model output, a measurement model fit test is conducted to ensure the model fits well and can be further analyzed. Validity analysis is then performed by checking the SLF (standardized loading factor). The recommended values of SLF are ≥ 0.50 to be considered valid and can be used for further analysis. Next, the reliability of the latent variables is assessed through the Composite Reliability (CR) and Variance Extracted (VE) values. According to Hair et al. (2011), the recommended value for CR is ≥ 0.70 and for VE is ≥ 0.50. Based on the validity and reliability test results presented in Table 3, all of the indicators have a value of SLF greater than 0.50, CR values greater than 0.70, and VE values greater than 0.50, so it can be concluded that the measurement of each variable meets the criteria for validity and reliability.

Table 3. Validity and Reliability Test Results

Variables	Item	SLF	Error	CR	VE	Conclusion
Financial Literacy	FL1	0.848	0.281	0.967	0.710	Valid and Reliable
	FL2	0.856	0.267			
	FL3	0.842	0.291			
	FL4	0.828	0.314			
	FL5	0.841	0.293			
	FL6	0.805	0.352			
	FL7	0.922	0.150			
	FL8	0.862	0.257			
	FL9	0.895	0.199			
	FL10	0.836	0.301			
	FL11	0.856	0.267			
	FL12	0.701	0.509			
Attitude Toward Saving	ATS1	0.780	0.392	0.931	0.694	Valid and Reliable
	ATS2	0.814	0.337			
	ATS3	0.825	0.319			
	ATS4	0.844	0.288			
	ATS5	0.900	0.190			
	ATS6	0.831	0.309			
Subjective Norm	SN1	0.822	0.324	0.925	0.674	Valid and Reliable
	SN2	0.810	0.344			
	SN3	0.799	0.362			
	SN4	0.843	0.289			
	SN5	0.845	0.286			
	SN6	0.806	0.350			
Perceived Behavioral Control	PBC1	0.832	0.308	0.915	0.682	Valid and Reliable
	PBC2	0.814	0.337			
	PBC3	0.812	0.341			
	PBC4	0.798	0.363			
	PBC5	0.872	0.240			
Financial Behavior	FB1	0.799	0.362	0.962	0.717	Valid and Reliable
	FB2	0.782	0.388			
	FB3	0.810	0.344			
	FB4	0.889	0.210			
	FB5	0.875	0.234			
	FB6	0.905	0.181			
	FB7	0.933	0.130			
	FB8	0.780	0.392			
	FB9	0.854	0.271			
	FB10	0.826	0.318			
Financial Well-Being	FWB1	0.848	0.281	0.952	0.713	Valid and Reliable
	FWB2	0.806	0.350			
	FWB3	0.810	0.344			
	FWB4	0.863	0.255			
	FWB5	0.840	0.294			
	FWB6	0.877	0.231			
	FWB7	0.816	0.334			
	FWB8	0.890	0.208			

4.3. Goodness of Fit Model

In the structural model fit test, two goodness of fit indicators in the absolute fit indices category still show marginal fit: RMSEA and GFI. In contrast, SRMR and the incremental fit indices (NFI, NNFI, CFI, IFI, and RFI) show good fit results. Thus, the model used in this study has a good relationship between latent variables. The results of this test can be seen in more detail in Table 4.

Table 4. Goodness of Fit Test Result

Goodness of Fit Indicators	Standard Value	Result	Conclusion
Absolute Fit Indices			
Root Mean Square Error of Approximation (RMSEA)	RMSEA ≤ 0.08	0.086	Marginal Fit
Standardized Root Mean Square Residual (SRMR)	SRMR ≤ 0.5	0.056	Good Fit
Goodness of Fit Index (GFI)	GFI ≥ 0.9	0.873	Marginal Fit
Incremental Fit Indices			
Normed Fit Index (NFI)	NFI ≥ 0.9	0.939	Good Fit
Non-Normed Fit Index (NNFI)	NNFI ≥ 0.9	0.953	Good Fit
Comparative Fit Index (CFI)	CFI ≥ 0.9	0.957	Good Fit
Incremental Fit Index (IFI)	IFI ≥ 0.9	0.957	Good Fit
Relative Fit Index (RFI)	RFI ≥ 0.9	0.932	Good Fit

4.4. Hypothesis Testing

Based on the results of hypothesis testing shown in Table 5, financial literacy and subjective norm have a positive and significant influence on attitude towards saving, so H1 (t-value = 4.360) and H2 (t-value = 3.811) are supported. Financial literacy and attitude towards saving positively and significantly influence financial behavior, so H3 (t-value = 3.345) and H4 (t-value = 6.045) are supported. However, H5 is not supported because the effect of subjective norm on financial behavior is not significant (t-value = 1.231).

Attitude towards saving can mediate the effect of financial literacy on financial behavior (H6), as showed by the significant effect of financial literacy on attitude towards saving (t-value = 4.360) and the significant effect of attitude towards saving on financial behavior (t-value = 6.045), which is also supported by the direct effect of financial literacy on financial behavior (t-value = 3.345), so it can be said that the mediating effect of attitude towards saving formed on the effect of financial literacy on financial behavior is partial mediation. It is said to be partial mediation because the indirect effect of financial literacy on financial behavior is greater than the direct effect, so the role of the attitude towards saving variable is to strengthen the relationship between the two variables.

Attitude towards saving could also mediate the effect of subjective norm on financial behavior (H7), as showed by the significant effect of subjective norm on attitude towards saving (t-value = 3.811) and the significant effect of attitude towards saving on financial behavior (t-value = 6.045), however it was found that subjective norm had no significant effect on financial behavior (t-value = 1.231), so it can be said that the mediating effect of attitude towards saving formed on the effect of subjective norm on financial behavior is complete mediation. It is said to be full mediation because the direct effect of subjective norm on financial behavior is not significant, so the attitude towards saving variable fully mediates the relationship between the two variables.

Perceived behavioral control positively and significantly affects financial behavior with a t-value of 4.024 (H8). Financial literacy and behavior positively and significantly affect financial well-being, with a t-value of 5.828 (H9) and 5.491 (H10), respectively. Thus, H8, H9, and H10 are supported.

Table 5. Hypothesis Testing Result

Hypothesis	Relationship	t-value	Conclusion
H1	Financial Literacy → Attitude towards Saving	4.360	Supported
H2	Subjective Norm → Attitude towards Saving	3.811	Supported
H3	Financial Literacy → Financial Behavior	3.345	Supported
H4	Attitude towards Saving → Financial Behavior	6.045	Supported
H5	Subjective Norm → Financial Behavior	1.231	Not Supported
H6	Financial Literacy → Attitude towards Saving → Financial Behavior	26.356	Supported; Partial Mediation
H7	Subjective Norm → Attitude towards Saving → Financial Behavior	23.037	Supported; Full Mediation
H8	Perceived Behavioral Control → Financial Behavior	4.024	Supported
H9	Financial Literacy Financial → Well-Being	5.828	Supported
H10	Financial Behavior Financial → Well-Being	5.491	Supported
H11	Financial Literacy → Financial Behavior → Financial Well-Being	18.367	Supported; Partial Mediation

Financial behavior mediates the effect of financial literacy on financial well-being (H11), as showed by the significant effect of financial literacy on financial behavior (t-value = 3.345) and the significant effect of financial behavior on financial well-being (t-value = 5.491), which is also supported by the direct effect of financial literacy on financial well-being (t-value = 5.828), so it can be said that the mediating effect of financial behavior formed on the effect of financial literacy on financial well-being is partial mediation. It is said to be partial mediation because the direct effect of financial literacy on financial well-being is greater than the indirect effect, so it can be said that the mediating role of financial behavior is less effective.

4.5. Discussion

This study uses demographic aspects such as gender, education, and type of employment to determine the characteristics of the research respondents. Men, as the majority of respondents in this study (58%), have a lower financial literacy index than women, which is 63.8% for men and 66.39% for women (SNLIK, 2024). This suggests that women have a better understanding of finance than men. In terms of education, the highest financial literacy index value is in the tertiary education group with a value of 86.09%, while in terms of employment type, the highest financial literacy index value is in the employee and entrepreneur groups with values of 83.16% and 78.26%, respectively (SNLIK, 2024).

This study proves the positive relationship between financial literacy and attitude towards saving. Previous studies have shown that those who are financially literate tend to save and set aside some of their money for saving (Bayar et al., 2017). This attitude towards saving is formed because these millennial workers have numerous financial choices. This ability makes them feel secure in saving and using their money to the best of their ability. Income and a person's level of education can also be factors that can affect a person's willingness to save (Morgan & Long, 2020), because people with higher levels of education are better at understanding financial matters, so they could make better financial decisions and plan for their future.

In addition to financial literacy, attitude towards saving is positively influenced by subjective norms. This shows that the influence and views of family or close friends have encouraged a person's willingness to save. Their influence and social pressure from others tend to change one's attitude according to the views of those around him or her. As the closest relatives, parents have the most influence in developing and changing the saving attitude of their children (Azlan et al., 2015). This saving attitude is formed due to the influence of those closest to them who hope that millennial workers will set aside their income and save every month for unexpected expenses, so they will feel better if they save because by saving, they could benefit themselves, and also not feel pressured by others around them. These results align with previous studies conducted by Widyastuti et al. (2016) and Widjaja et al. (2020), who found a positive influence between subjective norms and attitudes toward saving.

The positive effect of financial literacy on financial behavior found in this study shows that a person's financial behavior is influenced by his or her high or low level of financial literacy. The higher a person's level of financial literacy, the more careful they tend to be with their money, and the better they tend to be at managing budgets, tracking expenses, and avoiding excessive debt. They are also more likely to save and invest for the future. From this study, it is known that most millennial workers already plan to achieve their financial goals and have also set aside some money for retirement, which shows that they can make financial decisions appropriately. However, some still do not set aside money for savings. The results of this finding can reinforce the previous findings of Grohmann (2018), who stated in their research that financial literacy has a causal relationship with financial behavior.

Attitude towards saving also has a positive effect on financial behavior. A positive attitude towards saving will encourage someone to have clear financial goals and plans. In addition, a positive attitude towards saving can also trigger more proactive financial behaviors because saving makes one more comfortable with financial behaviors such as keeping financial records, budgeting expenses, and paying bills as soon as possible. By setting aside a portion of their income for savings, millennial workers feel more financially secure and demonstrate a commitment to good financial management. This is a strong foundation for achieving future goals, such as a comfortable retirement, because with a commitment to financial management, they will be more disciplined in managing their spending. The results of this study are consistent with those expected Shim et al. (2010), where attitude towards saving successfully indicates healthy financial behavior. These results can also reinforce the previous findings of Akben-Selcuk (2015) and Ameliawati & Setiyani (2018), which state a positive relationship between saving attitude and financial behavior.

Subjective norms have an insignificant effect on financial behavior, showing that social influence or views do not affect a person's financial behavior. This is because some people do not consider social pressure from family or friends as a motivation for good financial behavior. However, rather a person's financial behavior is strongly influenced by their immediate needs (Fenitra et al., 2023). For mature millennial workers, subjective norms do not influence financial behavior because they already have the initiative to manage or control their finances. Another reason for the insignificant effect of subjective norm on financial behavior is financial confidence. Someone who can understand their finances regarding income, expenses, savings, and investments, as well as the financial risks they face, can then manage and decide what to do with their finances (Abdurrahman & Adi, 2024). The results of this study do not support the previous research conducted by Bhatti & Akram (2020) and Yoopetch & Chaithanapat (2021), where they found that subjective norm has a positive and significant relationship with financial behavior.

This study found the influence of financial literacy on financial behavior, which is mediated by attitude towards saving. Attitude towards saving plays a role in strengthening the relationship between financial literacy and financial behavior. With the discipline of reviewing every transaction and balancing the checkbook, millennial workers will become more adept at managing their finances. This skill, coupled with the habit of saving regularly and having a clear financial plan, will make them feel better and more financially secure. They will move closer to their respective financial goals as they cut unnecessary living expenses. According to Bose (2022), it is not enough to have good financial literacy, as one's attitude in using knowledge also greatly influences one's financial behavior.

This study also found the influence of subjective norms on financial behavior, which are mediated by attitudes towards saving. Based on research by Jorgensen & Savla (2010), someone who learns about finances from their parents tends to have good financial attitudes and behaviors. Saving is not only a habit, but also an investment for the future. By setting aside a certain amount of money each month, millennial workers feel more secure against unexpected expenses and get closer to their financial goals. Bolstered by the expectations of their parents and peers to live frugally, they can be motivated to continue to improve their financial management. In this study, however, subjective norms do not directly affect financial behavior; they require the mediating role of attitude toward saving. Thus, the mediating effect of attitude toward saving on the effect of subjective norm on financial behavior is complete mediation.

This study found that perceived behavioral control positively influences financial behavior. A person's perception of his or her ability to take action plays an important role in shaping financial behavior. The greater a person's belief that they can manage their finances well and achieve their savings goal, the more likely they are to take concrete action to save. This perception will encourage individuals to budget, look for ways to save, and avoid unnecessary spending. Most millennial workers believe saving and planning for retirement is very important, as evidenced by their financial behaviors, which prefer to set aside money for retirement. These findings are consistent with the results of studies conducted by Tam et al. (2018), Muniandy et al. (2021), and She et al. (2023) regarding the positive relationship between perceived behavioral control and financial behavior.

This study found a positive effect of financial literacy on financial well-being. A good understanding of financial concepts enables a person to make wise financial decisions and feel more secure and confident when facing financial challenges. This ability to make appropriate financial decisions leads millennial workers to feel satisfied with their finances. In addition, if they need to borrow money, they do not want that loan to complicate their finances in the future. The results of this study align with the statement of Hung et al. (2011) who refer to financial literacy as the ability to manage financial resources effectively. The results of this study can also support the findings of previous studies by Agyei (2018), Pijoh et al. (2020), and Adam et al. (2021) where financial literacy tends to affect financial well-being.

Financial behavior also has a positive impact on financial well-being. If someone can manage finances, that person will be closer to achieving financial well-being. According to Brüggen et al. (2017), someone who can adjust their finances according to their circumstances will find it easier to achieve financial well-being. Millennial workers' habit of putting money aside makes them feel satisfied with their finances, and putting money aside allows them to have money to pay for emergencies. These findings are consistent with those of Gutter & Copur (2011) and Rahman et al. (2021), who found a positive relationship between financial behaviors and financial well-being.

Another finding in this study is that financial literacy directly and indirectly affects financial well-being, mediated by financial behavior. Discipline in managing finances, from spending money as needed to reviewing every transaction, could help millennial workers achieve financial stability. A well-thought-out financial plan, including allocating funds for retirement and emergency funds, makes them feel secure and prepared for the future. However, they still strive to improve their financial situation continually by saving. The indirect effect of financial literacy on financial well-being is smaller than the direct effect, which means that financial behavior cannot fully mediate the effect between financial literacy and financial well-being. Therefore, it can be said that the mediating effect of financial behavior on the effect of financial literacy on financial well-being is partial mediation (Setiyani & Solichatun, 2019).

5. Conclusion

5.1 Theoretical Implications

The theoretical implication in this study is the combination of the Theory of Planned Behavior and Financial Literacy. When applied to this study, the three components of TPB (attitude, subjective norm, and perceived behavioral control) can strengthen financial literacy and influence a person's behavior to achieve financial well-being. This study explores the mediating role of attitude towards saving in the relationship between financial literacy and financial behavior, as well as between subjective norm and financial behavior. This study also explores the mediating role of financial behavior in the relationship between financial literacy and financial well-being. The findings also highlight the significant influence of financial literacy on millennial workers' attitudes towards saving, subjective norms, perceived behavioral control, and financial behavior, contributing new insights into applying the Theory of Planned Behavior (TPB) in the context of financial well-being and personal finance.

5.2 Practical Implications

Based on the study's results, we found support for the idea that higher financial literacy leads to a higher attitude towards saving, higher financial behavior, and finally, higher financial well-being. Therefore, efforts should be made to improve financial literacy among the millennial community. To improve financial literacy among millennials, marketers of financial products should make financial education more accessible and convenient, offer personalized and just-in-time financial education, and utilize digital platforms, such as engaging content on social media, podcasts, or short videos.

This study also found that perceived behavioral control significantly influences an individual's financial behavior. This implies that when people believe they have the resources, knowledge, and ability to manage their finances effectively, they are more likely to engage in positive financial behaviors. Organizations and financial institutions can implement programs and provide resources that enhance millennials' perceived control over their finances, such as promoting financial inclusion, simplifying complex financial products, and showcasing success stories through social media, considering how active millennials are on social media. This finding suggests that financial literacy plays a crucial role in shaping an individual's financial well-being, offering empirical support for applying the Theory of Planned Behavior among millennial workers.

This research provides implications for government agencies regarding the importance of financial education that should be given to children at an early age, so they understand the importance of saving and are wiser in using money. Thus, financial well-being can be achieved as expected. Companies could consider establishing programs that support improving employees' financial literacy, such as providing financial education or access to financial planning tools. By improving employees' financial literacy, the companies could help them achieve personal financial well-being and improve their work productivity.

5.3 Limitations and Future Research Agenda

Some limitations or constraints on this study need to be improved. First, this research was only conducted in the area of Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek), which is a big city with the majority of the population having high education (BPS, 2024), it is necessary to conduct research in areas with the majority of the population with low education to test its influence on financial literacy. Furthermore, this research stops at financial well-being as the ultimate goal of the research. Financial well-being could be considered the result of a process (Bureau, 2015). Thus, it is necessary to know the process that needs to be taken to achieve this financial well-being. Suggestions that could be given for future research are to add cultural variables to see their influence on achieving financial well-being. Cultural variables need to be considered for future research, given how diverse Indonesia is, where cultures in certain regions will have different financial behaviors. Several cultural dimensions are particularly relevant to financial decision-making that could affect their financial behavior, such as (1) collectivism vs individualism, in which individualistic will emphasize more on personal achievement and self-reliance while collectivist will prioritize group harmony and the well-being of the community (Jiao & Zhao, 2023); (2) power distance, in which authority figures might heavily influence financial decisions in high power distance culture, while low power distance will feature more egalitarian relationship (Zhao, 2021); (3) uncertainty avoidance, in cultures characterized by high uncertainty avoidance, individuals typically exhibit a low tolerance for risk and tend to favor stable, low-risk financial products and vice versa (Arshad & Ibrahim, 2019); and (4) long vs short-term orientation, in which long-term oriented will focus on long-term planning, saving, and investment for the future while short-term oriented will place more emphasis on immediate needs and gratification (Hofstede, 2001). In addition, future research can also add process variables that can be used to achieve financial well-being, such as investment variables.

Author Contribution

Author 1: conceptualization, data curation, formal analysis, investigation, methodology, visualization, writing original draft.
Author 2: conceptualization, review, supervision, validation.

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Conflict of Interest

The authors declare that the research was conducted without any commercial or financial relationships that could potentially create a conflict of interest.

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