

Influence of Financial Literacy on Financial Well-Being: A Case of Vietnam

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Authors' contributions

This work was carried out in collaboration among all authors. Authors HDP and HLN designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author TKN managed the analyses of the study and the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Financial well-being has garnered significant attention in Vietnam in recent years. Analysts predict that in the current global economy, the ability to effectively handle one's financial resources will be a crucial factor in achieving success. Studies indicate that financial knowledge and financial independence are measurable patterns that will inevitably develop in the near future. Financial well-being entails the capacity to make choices that enable individuals to fully experience life, thus granting them freedom. This study examines the impact of financial literacy on financial well-being. The findings demonstrate the positive correlation between financial attitudes and financial

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behaviors, as well as financial planning. Additionally, they reveal the positive impact of financial behaviors on financial planning, and the positive effect of financial planning on financial well-being. To achieve these outcomes, the authors employed a quantitative research approach that involved conducting a primary survey of 320 Vietnamese individuals and analyzing relevant variables using SPSS 22 and AMOS 20 software. These findings add on to the existing literature, and also indicate practical consequences as policymakers should give priority to the implementation of measures that specifically aim to enhance financial literacy, thus leading to a better financial well-being in Vietnam.

Keywords: Financial well-being; financial literacy; financial planning; the theory of planned behaviors.

1. INTRODUCTION

Various studies have demonstrated that financial knowledge and efficacy [1,2] financial attitudes toward matters such as money or debt [3] and financial behaviors regarding budgeting, saving, and compulsive buying [4] can all affect the perception of financial well-being. Nowadays, recession has threatened the financial well-being and caused economic concerns, including concerns about health, debts, income, and career advancement of an individual. Accordingly, financial well-being is an undoubtedly important factor in determining the quality of life. The paper discusses the importance of financial literacy, which is reflected by three dimensions – financial attitude, financial knowledge, and financial behaviors [5] - in determining individuals' perception of financial well-being. It highlights that factors such as financial knowledge, efficacy, attitudes, and behaviors can all affect financial well-being. Financial literacy education has also been proved to help reduce financial problems and encourage individuals to take responsibility for their own finances. It further emphasizes that higher levels of financial knowledge, confidence, and certain money management behaviors are positively associated with financial well-being. Additionally, financial attitude is identified as a necessary determinant of financial literacy and influences individuals' level of financial literacy.

Although earlier research has shown various results about the influence of financial literacy, there is still a lack of comprehensive knowledge about the cause-and-effect link between financial literacy and financial well-being, especially in Vietnam. Hence, it is essential to do research on the influence of financial education and financial literacy on the financial well-being in Vietnam. This study offers valuable insights for policymakers and educators to create focused interventions, enhance levels of financial literacy, encourage responsible financial behaviors, foster

financial well-being, and stimulate economic growth in Vietnam. Moreover, the insights gained from Vietnam may be used to international endeavors, assisting other nations grappling with comparable difficulties in bolstering their understanding of financial matters and promoting long-lasting economic development. Having been equipped with comprehensive financial education and literacy skills, Vietnamese people may make more well-informed financial decisions and contribute to a more sustainable future, benefitting both Vietnam and the global world.

Our paper is organized as follows. Section 2 presents our literature review on the topic of financial literacy and financial well-being. Section 3 presents data and methodology employed to conduct the study. Section 4 presents the findings of the relationship between financial literacy and financial well-being after testing the SEM models and finally, section 5 concludes our paper with a summary of findings, contributions, and implications.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Financial Well-Being

“Attaining financial well-being is a primary goal for individuals and households. It has an impact on an individual's overall wealth and satisfaction with life. Individuals experiencing financial difficulties are prone to worry about their debt, employment status, income, and other related variables. Financial well-being can also be defined as a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life” [6]. “Financial well-being is the condition in which a person can meet the needs of life, feel secure in the future, enjoy life in the present, and be able to cope with unexpected financial demands in the future. Financial well-

being reflects the financial condition where an individual or family has enough resources to live a comfortable life. Financial well-being means being financially healthy, happy, and worry-free” [7,8]. According to Sang [9] “planning and feeling in control are important indicators of reported financial well-being. This shows that treatments based on positive psychology, such as financial planning and financial literacy programs, may be successful in enhancing people's financial well-being”.

Financial well-being is understandable by everybody who wants to get better at handling their finances consciously [10]. It is the state of mind when a person is aware of his or her financial situation and how to deal with it because he or she knows that they can do anything they want and need. When it comes to saving money, which is a necessity in achieving financial well-being, individuals need to decide what they are going to do with their money. Based on their budget, they would have to set up a time limit where they know when they can get these things, and in that way, they will not spend more than what is on hand or set aside for them. Financial well-being is achieved when a person can get their needs met within their budget, which helps them be able to manage their finances and live better [11]. The way a person with financial well-being sees money and spending will vary from person to person. Individual needs should also be planned out so that an individual knows exactly how much money he or she needs for each thing and when it will be paid off.

In recent years, financial well-being has garnered a lot of attention. Many people are becoming more financially literate as information becomes more widely available. Analysts predict that the ability to manage one's own financial resources will be a key factor in one's personal growth in today's world economy. Differences may exist between those who are financially literate and those who are not. However, despite remarkable economic development and an unprecedented increase in the number of people who know about personal finance in Vietnam, there are still a large part who are unaware of the significance of financial well-being [9]. Previous research has revealed that financial literacy and financial independence are measurable trends that will inevitably develop in the future. Individuals and families in Vietnam are looking for more financial well-being as they become more financially savvy. There are a lot of debates in Vietnam

nowadays on the topic of being financially well off. Without doubt, these debates are fueled by the recent economic growth of Vietnam, and it has taken an interesting turn in recent times.

“Financial well-being is an important part of individual overall personal well-being and can be achieved regardless of income. Being financially wealth means each person can meet the current and ongoing financial obligations, feel secure in their financial future, and are able to make choices that allow them to enjoy life – in other words, financial freedom. However, data shows that personal finances continue to be a leading cause of stress for many people. Financial stress occurs when there is uncertainty around finances, a sense of worry about the future, and a lack of security” [7].

2.2 Financial Literacy

“Financial literacy can be defined as measuring how well an individual can understand and use personal finance-related information” [12]. Atkinson and Messy [13] went further by defining financial literacy as “a combination of awareness, knowledge, skills, attitude, and behaviors necessary to make sound financial decisions and ultimately achieve individual financial well-being”. A Canadian study specifically focussed on the links between financial literacy and financial well-being and found a positive correlation between the two variables [14].

Financial literacy, according to Baker & Ricciardi [15] combines three elements: financial knowledge, financial attitudes, and financial behavior. In which:

Financial knowledge is the subject's comprehension of the ideas behind financial phrases (such as interest rates, bonds, etc.) and the workings of financial institutions (such as banks and credit institutions). Thus, financial knowledge will be a basic requirement factor to form the financial behavior and attitude of the subject.

Financial attitude is the subject's attitude towards the happenings of the surrounding financial situation. The subject's financial knowledge, which serves as the foundation for their financial behaviors, determines how they feel about their financial and economic condition.

Financial behavior is defined as the influence of the subject on changes in the external economy.

We can observe how sensitive the subject is to changes in the economy by seeing how they respond to it.

Many domestic and foreign authors have mentioned these definitions in their study. For instance, in the book "Understanding Consumer Financial Behavior" written by W. Fred van Raaij [16] the author bases his study on the findings of Baker and Ricciardi [15] Dr. Khuc The Anh [17] applied the above hypothesis in his work "Financial Literacy of the Poor in Vietnam's Rural Area".

Additionally, these three elements interact with one another. Compared with financial well-being, financial literacy is a rather broader concept and is generally taken to mean financial behavior, financial attitudes, and financial knowledge.

2.2.1 Financial knowledge

"Higher levels of financial know-how, confidence, and certain day-to-day money management behaviors appear to have strong and positive relationships with financial well-being. In addition, individuals with relatively high levels of financial knowledge and financial skills have higher average financial well-being (with larger differences in financial well-being between subgroups with different levels of financial skills than between subgroups with different levels of financial knowledge)" [6]. Financial knowledge helps with making the best financial decisions, avoiding financial problems, and moving towards a state of financial well-being. One's financial knowledge requires developing financial skills and learning how to use financial tools, such as budget preparation, investment planning, and insurance planning. Financial knowledge is one of the key aspects of determining financial well-being. People with good financial knowledge tend to save more and invest more for the future. Lusardi & Mitchell [18] identified that financial knowledge has a positive association with individuals possessing financial knowledge are more financial literate.

2.2.2 Financial attitude

"Financial attitude is a situation of judgments, opinions, and thoughts about finances. Every aspect of human life, without the exception of the financial aspect, will require a financial attitude" [19]. The financial attitude we have will help in making decisions regarding the form of

investment to be taken and determining attitudes and behaviors in various financial issues including managing finances and personal financial budgeting. According to Sahi et al. [20] individuals who have a positive attitude will manage their finances wisely. Likewise, a positive attitude reflects individuals who are more cautious in spending their money. Dwivedi, Purohit & Mehta [21] 's literature review supports that financial attitude is a necessary determinant to identify financial literacy of individuals, and it also influences the level of financial literacy. With this ability, individuals will make smart decisions so that they can avoid large expenses and help their financial well-being. Financial attitude is closely related to the state of mind. When an individual thinks of treating his finances as something valuable and must be accounted for, then this attitude will lead to healthy finances so that they can improve the quality of life related to their financial well-being.

2.2.3 Financial behaviors

Financial behavior includes broad concepts including investment behaviour for short-term and long-term, savings behaviour, credit usage, expenditure behaviour, etc. This study conceptualises financial behaviour based on Norvilitis et al. [22] definition as regular money management of cash, savings, and credit is more relevant to people in the bottom line. Brügggen et al. [7] report that financial behavior has a direct effect on financial well-being. Similarly, Joo and Grable [4] postulate that financial well-being is, directly and indirectly, related to financial behavior. In another study by Klontz and Britt [23] individual financial behavior means to the financial management capabilities acquired by them. There have also been several previous studies that explained financial behavior from different perspectives.

2.3 Financial Planning

"Certified Financial Planner Board's definition of financial planning is as follows: "Personal financial planning" or "financial planning" denotes the process of determining whether and how an individual can meet life goals through the proper management of financial resources" " [6]. "Financial planning is the process that takes into account client's personality, financial status and the socio-economic and legal environments and leads to the adoption of strategies and use of financial tools that are expected to aid in achieving the client's financial goals" [24].

“Savings and financial cushions provide the greatest differentiation between people with different levels of financial well-being. Highlighting the importance of savings and other safety nets in helping people to feel financially secure is one of the basic elements of financial well-being. Certain experiences with debt and credit seem to be strongly and negatively associated with financial well-being. These include whether someone has been denied credit, has used a non-bank short-term credit product, and has been contacted by a debt collector” [6].

According to Demircuc-Kunt et al. [25] financial literacy influences an individual's income through financial planning and wise financial choices risk assessment.

2.4 Research Gap and Hypothesis Development

2.4.1 Research gap

According to the findings of the studies, financial literacy has an impact on financial planning (spending, investing, and saving) of each individual in the economy and their financial well-being, as reflected via theories and attitudes, as well as the behavior of economic actors. However, the results have many similarities, highlighting certain topics that can be explored further in future studies. The causes of the discrepancies in evaluating financial literacy may be attributed to differences in perspectives, researchers, unique qualities of each geographical region, differences in research samples, and research techniques. Specifically, due to inconsistencies in measurement methodologies, the questionnaires employed in countries with transition economies, such as Vietnam, must be altered to reflect reality. Research focuses on developing countries such as the OECD, the United States, and Japan, while disregarding countries with transitional economies such as Vietnam. In terms of demographic features, these studies focus on countries with high consumption-oriented cultures while ignoring big communities such as Vietnam.

Recently, there has been no published research that acknowledged the distinctive peculiarities of Vietnam that affect financial literacy. Vietnam's economy is being transformed into a state-directed market mechanism due to the Doi Moi process, which began in 1986. Economic sectors

are encouraged to flourish, but access to financial literacy and financial wellbeing for some sectors, particularly young labor, remains limited. There have been only a few studies on financial literacy in Vietnam so far, conducted by Nguyen et al. [26] Nguyen et al., [27] etc; and very few among them investigate the potential relationship between financial literacy and financial well-being. International financial institutions such as the World Bank and the OECD frequently give financial literacy data in Vietnamese research. These statistics have limitations, such as the data being provided for the goal of comparing regions with each other globally, rather than for in-depth research in Vietnam; the data not being specialized for a group of people in a specific location or age and so on. As a result, the global solutions developed by policymakers are still incompatible with reality. The effects of this problem may directly contribute to the creation of bias in study findings, leading to errors in the application of policy in Vietnam. Building a precise and accurate financial literacy research methodology and examining the impact of financial literacy on Vietnamese people's income are all done with the intention of bringing out the influencing elements. This study aims to fill these research gaps and contribute not only to the literature, but also can serve as some suggestions for the policy makers to improve the financial well-being of Vietnamese people.

2.4.2 Hypothesis development

Research conducted by Shim et al. [1] suggests that it is possible to forecast financial attitudes. Louw et al. [28] argues that having financial knowledge contributes to the cultivation of a favorable financial attitude. Financial attitudes may be modified to enhance individuals' financial literacy. Potrich et al. [29] observed that financial literacy training is a factor that impacts financial attitudes and behavior. The impact of knowledge on attitudes, which in turn affect a person's financial behavior, has also been demonstrated by Norvilitis & MacLean [22]. Garber et al. [19] who contend that financial knowledge and attitudes work together to explain financial actions, also support this point of view. The findings are also in line with the KAB (Knowledge, Attitude, Behavior) theory (Chase, 2005). Although this link is still taken for granted, taking full advantage of it is one of the things that might encourage consumers and economists to easily accomplish their objectives. Therefore, H1 is proposed as follows.

H1: Financial attitude has a positive effect on Financial knowledge.

The Theory of Planned Behavior (TPB) argues that a person's actions are determined by their intentions to carry them out. The relationships between intentions and a variety of other factors include attitude, subjective norm, and perceived behavioral control. According to the TPB, attitude is the first crucial component of intents and subsequent behaviors. Attitude refers to the emotional, cognitive, and behavioral responses of customers towards various events [30]. According to Ajzen, behavioral tendencies to engage in an activity can be used to predict or explain such behavior. According to Xu & Zia [31] the Theory of Planned Behavior (TPB) is the most appropriate theory related to financial behavior to be able to predict and understand these behaviors, and this theory explains an individual's intention to perform an acceptable behavior. Shim et al. [1] showed that financial knowledge predicts financial attitudes and that financial attitudes influence a person's financial behavior.

H2: Financial attitude has a positive effect on Financial behavior

The Coherence and Congruence Theory was developed by Sheldon & Kasser in 1995, and it demonstrated how knowledge of the subjects themselves can both generate and inhibit their behavior. Positive and negative activities will also influence how that subject is perceived. According to Chen's research on students in 1998, financial knowledge significantly improves financial behavior in this area. It is believed that the group with less financial knowledge has not fully learned the concepts of investing, borrowing, and saving. In contrast, if the remaining individuals possess sufficient financial knowledge, there is a greater probability that the financial decisions they make will be accurate in practice.

H3: Financial knowledge has a positive effect on Financial behavior

"The TPB determines the intentions of an individual to engage in a specific behavior, which can be explained by his/her motivations and ability or behavioral control. Since the TPB designates that an individual's attitude, subjective norms, and perceived behavioral control notably affect their behaviors and behavioral intentions, some studies utilized this

theory to predict investors' attitudes toward participation in the stock market. In financial decision-making, the attitudes of individuals are related to their behavioral intentions" [32,33]. According to the TPB Ajzen, [30] attitudes are defined as "the degree to which an individual derives a positive or negative valuation from performing a specific behavior". Therefore, the "attitude" can explain investors' favorable or unfavorable assessments regarding their intentions to invest in the market. The empirical evidence demonstrates that attitude towards investment decisions is a crucial factor that influences stock market participation decisions [23,34]. Moreover, prior studies have confirmed that investors' attitudes towards investment, "subjective norms", and "perceived behavioral control" positively influences their behavioral intentions to participate in the stock market (Nadeem et al., 2020). Based on these findings on stock market participation, the study proposes the following hypotheses.

H4: Financial attitude positively influences Financial planning

H5: Financial behavior positively influences Financial planning

According to Remund [35] financial knowledge is a measure of comprehension of basic financial concepts and competence and confidence to manage personal finances; through informed short-term logical decision-making, and long-term financial planning, while living responsibly or paying attention to life and changes in economic conditions. Lusardi and Mitchell [36] discovered that those with higher levels of financial knowledge were more likely to make retirement plans and the assets of people who have retirement plans are higher than those of people who do not. As a result, financial knowledge statistically influences retirement planning while also indirectly influencing people's financial planning. Therefore, the following hypothesis should be proposed.

H6: Financial knowledge positively influences Financial planning

When individuals decide to participate in the capital market, their perceived level of well-being and satisfaction are likely to influence the investment decisions they make. Financial decisions have been found in the literature to have a direct and significant effect on financial well-being [37,4,20]. However, few studies have

investigated the role of financial well-being in investors' attitudes and behavioral intentions toward stock market participation. As a result of the preceding discussion, the hypothesis should be as follows.

H7: Financial planning positively influences Financial well-being

The comprehensive research model should be proposed as follows.

3. DATA AND METHODOLOGY

This study employs primary data through a collection of surveys. The subjects of this study are Vietnamese workers, ranging in age from 18 to over 60, who already have a stable monthly income. The survey sample included people of various ages, education levels and income to increase the sample's reliability. The questionnaire is developed based on financial literacy measurements by OECD [5]. The final outcomes include 320 questionnaires with respect to 320 respondents. The determinants are quantified on a 5-point Likert scale. After the data collection process, a quantitative filtering process was conducted to remove the answers that are not suitable for the study, the data was then imported into SPSS 22 and AMOS 20 software, then being verified, and analyzed through Cronbach's Alpha, EFA, CFA, and SEM tests.

This research employs a quantitative approach that combines primary survey data and analysis

of Structural Equation Modeling (SEM) through SPSS 22 and AMOS 20 software with cross-sectional design. A number of tests such as Cronbach's Alpha test, Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA) have been conducted to ensure the reliability of the research framework.

4. RESULTS AND DISCUSSION

4.1 Cronbach's Alpha

Table 1 summarizes the result of Cronbach's Alpha test, in which the item Financial Attitude is denoted as FA – with scale from FA1 to FA6, developed by OECD [5]. Financial Behavior (FB) – with scale from FB1 to FB8, developed by OECD [5]. Financial Knowledge (FK) – scale from FK1 to FK7, developed by OECD [5]. Financial Planning (FP) – scale from FP1 to FP12, developed by research by Ali et al. [37]. Financial Well-being (FW) – scale from FW1 to FW10, developed based on The Consumer Financial Protection Bureau (CFPB)'s (2017) scale. According to Taft [14] when performing Cronbach's Alpha analysis for a factor, if the Cronbach's Alpha coefficient of the group is less than 0.6 and no variable in the group has Cronbach's Alpha, if the Item Deleted variable is greater than 0.6, it should be considered. The table above shows that most of the variables have Cronbach's alpha value greater than 0.6 and Cronbach's alpha if deleted value less than Cronbach's alpha. Only the item FA6 is not reliable, so it will be excluded from the model.

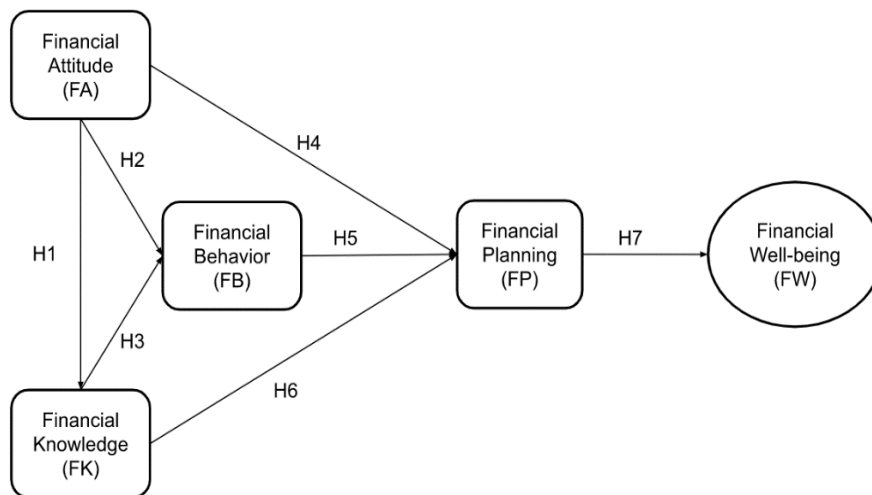


Fig. 1. Proposed research framework

Table 1. Cronbach's alpha test

Item-Total Statistics					
	Cronbach's alpha	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FA1	0.623	14.18	15.166	0.253	0.614
FA2		14.9	14.36	0.306	0.597
FA3		14.83	12.766	0.467	0.533
FA4		16.2	12.873	0.412	0.555
FA5		15.07	12.369	0.463	0.532
FA6		15.1	14.583	0.229	0.628
FB1	0,862	25.59	35.65	0.508	0.856
FB2		25.68	33.729	0.646	0.841
FB3		26.41	34.762	0.484	0.861
FB4		25.44	32.995	0.693	0.835
FB5		25.76	34.718	0.616	0.844
FB6		25.64	33.616	0.617	0.844
FB7		25.48	33.836	0.681	0.837
FB8		25.37	33.687	0.647	0.841
FK1	0.656	15.86	24.259	0.123	0.68
FK2		16.17	23.536	0.301	0.64
FK3		16.35	20.125	0.328	0.636
FK4		16.24	19.748	0.496	0.581
FK5		15.53	19.346	0.539	0.568
FK6		16.24	19.374	0.438	0.597
FK7		15.55	19.804	0.363	0.623
FP1	0.879	37.86	78.348	0.418	0.878
FP2		37.88	77.364	0.422	0.878
FP3		37.66	77.493	0.476	0.875
FP4		37.64	79.106	0.514	0.874
FP5		37.85	72.884	0.587	0.869
FP6		37.97	72.084	0.629	0.866
FP7		38.48	68.332	0.682	0.863
FP8		38.48	69.991	0.617	0.867
FP9		38.06	80.252	0.292	0.884
FP10		38.6	68.886	0.686	0.862
FP11		38.56	67.67	0.734	0.859
FP12		38.3	69.656	0.812	0.856
FW1	0.734	31.93	28.099	0.446	0.715
FW2		32.6	28.612	0.08	0.769
FW3		32.26	25.207	0.576	0.689
FW4		32.15	25.121	0.484	0.699
FW5		32.44	25.988	0.502	0.7
FW6		32.29	25.644	0.341	0.723
FW7		32.3	25.078	0.579	0.688
FW8		32.14	26.047	0.453	0.705
FW9		32.34	25.195	0.29	0.739
FW10		32.11	25.013	0.489	0.698

4.2 Exploratory Factor Analysis and Confirmatory Factor Analysis

After testing the reliability of the scales, exploratory factor analysis was conducted. The selected factor extraction method is the Principal components method with Varimax rotation. In

EFA analysis, variables with load multiplier above 0.5 will be kept and the total variance extracted must be greater than 50%. The KMO (Kaiser - Meyer - Olkin Measure of Simpung Adequacy) index must satisfy the condition $0.5 \leq KMO \leq 1$ and the Barlett test has sig significance < 0.05 .

The result when performing the EFA is as follows:

Table 2. KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.782
Bartlett's Test of Sphericity	Approx. Chi-Square	2686.799
	df	210
	Sig.	0.000

Testing the model's suitability, the coefficient $KMO = 0.807 > 0.6$, the model is very suitable for the sample data, and the KMO coefficient is quite high, showing that this model has practical significance. To test the hypothesis about the correlation between the observed variables, Bartlett's test of sphericity (SigF) reached 0.000 which is very small compared to the 5% significance level. Therefore, the variables in the model correlate very closely with each other.

At the point with Eigenvalues > 1 , the total variance extracted from the model is 64.119%, larger than the condition (50%), the model is accepted. The extracted variables explain 64.119% of the observed variables.

Table 4 shows variables divided into different groups: FA (FA4, FA5), FB (FB1, FB2, FB4, FB6, FB7, FB8), FK (FK4, FK5, FK7), FP (FP5, FP6, FP7, FP8, FP10, FP11, FP12), FW (FW4, FW8, FW10).

Confirmatory Factor Analysis, like Exploratory Factor Analysis, eliminates certain nonconforming items. The final outcomes are as follows.

4.3 Structural Model Test Results (SEM)

In general, it could be seen that the criteria for measuring the fit of the model show that the Chi-square/df = 3.803, GFI = 0.840, CF1 = 0.804 values are all greater than 0.8, the coefficients RMSEA, TLI are within acceptable thresholds, so the model achieves market data fit.

To be more specific, the normalized regression coefficient of independent variables shows that the impact of financial planning on financial well-being is 0.42, which means a 1 percent increase in financial planning will increase by 42 percent in terms of financial well-being if other variables are controlled. It implies the alternative hypothesis that should be accepted is: Financial Planning (FP) positively influences Financial Well-being (FW).

Besides, the impact of financial attitude on financial planning is 0.532, the largest of all factors, which means the main factor affecting financial planning is the financial attitude of each subject. It implies that the alternative hypothesis that should be accepted is: Financial Attitude (FA) positively influences Financial Planning (FP).

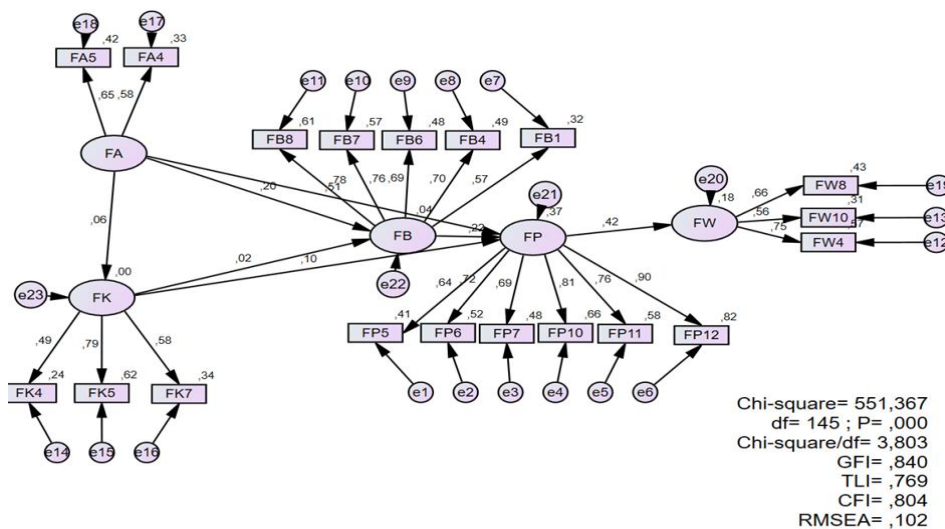


Fig. 2. SEM model

Table 3. Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.999	28.568	28.568	5.999	28.568	28.568	4.638	22.086	22.086
2	2.686	12.791	41.359	2.686	12.791	41.359	3.406	16.221	38.306
3	1.926	9.170	50.529	1.926	9.170	50.529	2.032	9.676	47.982
4	1.558	7.417	57.945	1.558	7.417	57.945	1.824	8.684	56.666
5	1.307	6.224	64.169	1.307	6.224	64.169	1.576	7.503	64.169
6	.968	4.608	68.777						
7	.816	3.888	72.665						
8	.722	3.437	76.101						
9	.667	3.175	79.276						
10	.585	2.787	82.062						
11	.555	2.642	84.705						
12	.522	2.484	87.189						
13	.512	2.438	89.626						
14	.452	2.152	91.778						
15	.391	1.863	93.641						
16	.315	1.502	95.143						
17	.280	1.336	96.479						
18	.231	1.101	97.580						
19	.203	.967	98.547						
20	.163	.778	99.325						
21	.142	.675	100.000						

Table 4. Rotated component matrix

Rotated Component Matrix					
	Component				
	1	2	3	4	5
FA4					0.773
FA5					0.755
FB1		0.706			
FB2		0.636			
FB4		0.738			
FB6		0.698			
FB7		0.772			
FB8		0.829			
FK4				0.710	
FK5				0.806	
FK7				0.757	
FP5	0.769				
FP6	0.712				
FP7	0.818				
FP8	0.739				
FP10	0.773				
FP11	0.759				
FP12	0.812				
FW4			0.805		
FW8			0.733		
FW10			0.691		

Table 5. Pattern matrix

Pattern Matrix										
	Raw					Rescaled				
	Factor		3	4	5	Factor		3	4	5
	1	2				1	2			
FA4					0.735					0.572
FA5					0.794					0.608
FB1		0.685					0.612			
FB4		0.827					0.705			
FB6		0.727					0.602			
FB7		0.769					0.703			
FB8		1.033					0.894			
FK4				0.631					0.502	
FK5				0.944					0.751	
FK7				0.955					0.638	
FP5	0.976					0.804				
FP6	0.865					0.712				
FP7	1.145					0.800				
FP10	1.034					0.748				
FP11	0.909					0.650				
FP12	0.910					0.793				
FW4			0.860					0.836		
FW8			0.539					0.583		
FW10			0.485					0.466		

The research results can be summarized as follows.

Table 6. Estimated coefficients and summary of hypothesis

Hypothesis	Variables	Estimates	S.E	C.R	P-value	Results
H1	FA → FK	.053	.083	.634	.526	Not significant
H2	FA → FB	.169	.088	1.927	*	Positively significant
H3	FK → FB	.017	.082	.209	.834	Not significant
H4	FA → FP	.532	.118	4.504	***	Positively significant
H5	FB → FP	.272	.092	2.956	***	Positively significant
H6	FK → FP	.126	.097	1.301	.193	Not significant
H7	FP → FW	.420	.079	5.289	***	Positively significant

***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

Regression coefficient of Financial Attitude to Financial Behavior is 0.169, indicating a positive influence of Financial Attitude on Financial Behavior, H2 is supported; regression coefficient of Financial Attitude to Financial Planning is 0.532, showing a positive influence of Financial Attitude on Financial Planning, H4 is supported. The regression coefficient of Financial Behavior to Financial Planning is 0.272, showing the positive influence of Financial Behavior on Financial Planning, H5 is supported. Finally, regression coefficient of Financial Planning to Financial Well-being is 0.420, showing a positive influence of Financial Planning on Financial Well-being, H7 is supported.

In terms of discussion, through the data analysis, financial attitudes have a positive influence on the financial planning of the participants. These findings are supported by Ismail and Zaki [38] financial attitude is found to be the most influencing factor followed by financial behavior in affecting financial planning of participants. It is necessary to ensure a better orientation about financial attitude towards improving financial well-being of Vietnamese people. People with a high degree of financial attitude are better off financially. Sound financial behavior encompasses maintaining a balance between monthly income and expenditure, paying the bill on time, and considering savings buffer, etc. The results are supported by previous studies which state that financial behavior is positively associated with well-being directly and indirectly [7,38,4]. Hence, the policymakers of any nation should understand the nature of financial attitude of laborers and design economic policy.

“People should give thought to their own financial circumstances and plan to achieve their financial

goals. It has been highlighted those conscious efforts to review financial decisions consistent with financial goals and to obtain control of financial circumstances increased financial independence, contributed to accumulating sufficient wealth for retirement, and reaching financial well-being” [39,40, 18,41]. Furthermore, the propensity to plan can contribute to both current and future financial well-being. When financial knowledge is associated with a certain level of behavioral discipline, it enhances the effect of financial knowledge and provides people with a better chance of improving their financial planning and financial well-being [42].

This study makes important contributions to the existing literature. Although previous studies have found the positive effect of financial planning on financial well-being, discussions on the interaction between the two have been limited. Results showed that a positive association between financial planning and financial well-being can be enhanced by disciplined planning of personal finances. Thus, practitioners and educators can use these findings to offer advice to update clients’ routines and monitor their planning progress. When financial counseling or education programs accommodate the need for behavior intervention in financial management and knowledge, guidance in establishing and correcting one’s planning practices can promote the positive effect of financial knowledge on financial well-being [43].

Because financial well-being is still a relatively new concept in Vietnam, and there is no formal implementation program to promote the importance of financial literacy and its impact on

financial wellbeing, determining a course of action is challenging [44].

The measurement results demonstrate that the research subjects' financial literacy scores are generally above average, but the manner of knowing remains quite vast and there is a considerable variation in financial knowledge. There are also several "I'm not sure" responses, such as when asked about the meaning of inflation or the prime rate. Each aspect influencing financial literacy analyzes and clarifies this disparity. As a result, it can be concluded that: There is a difference in financial literacy comprehension across subjects with different levels of education, income, age, and gender. The study further clarified the statistical analysis of these disparities.

Therefore, while the financial literacy score remains at an average level, the research subjects' financial knowledge, financial attitudes, and financial behavior remain ambiguous, and there is still a significant variation between groups of subjects. Because there is no good financial planning, it also leads to a relatively tiny number of surveys attaining financial well-being of the target group with low financial literacy.

The research findings have significant implications for policymakers who are striving to enhance financial literacy and individual financial behavior, thus improving financial well-being in Vietnam. Our study demonstrates the efficacy of financial education in fostering favorable financial conduct. Policymakers should give priority to the implementation of measures that specifically aim to enhance financial literacy. These interventions may be implemented via educational institutions, such as schools and universities, since they have shown efficacy in enhancing financial awareness and understanding [45]. Efficient financial education programs should strive to attain elevated degrees of subjective financial understanding alongside imparting objective financial information. By integrating both objective and subjective financial information, individuals may develop a comprehensive understanding of financial concepts and improve their ability to make informed financial choices. Enhancing one's financial literacy empowers individuals to make wiser financial decisions. Also, through an analysis of the influence of financial education and financial literacy on the financial well-being in Vietnam, the study can pinpoint the specific areas where interventions and educational programs might be focused to

encourage the adoption of sustainable financial behaviors. This information may be used to design customized financial education programs that may promote the adoption of sustainable financial practices by people.

5. CONCLUSION

This study investigates the components of financial literacy that have an impact on financial planning and financial well-being. The three main factors of financial attitude, financial behavior and financial knowledge have been identified and analyzed in the article. Using a quantitative approach, the results of this study show the correlation between the variables and analyze the influence of financial literacy on financial well-being. Although the lack of data response has been mentioned in the literature as an important barrier to research. The results of this study provide substantial evidence which includes Vietnamese evidence to support the hypotheses posed.

This study still experienced some limitations including limited sample size, selection bias and human elements such as individual culture, personality, and beliefs might impact how respondents perceive credibility. Therefore, it is suggested to develop further research based on a larger sample size with more diversified characteristics of the survey respondents or investigate this topic in a different geographic area can also serve as an alternative direction.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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