

## Factors Affecting Financial Well-being of Filipino Basic Education Teachers: A Structural Equation Model

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### ABSTRACT

This descriptive-correlation study aims to assess the current financial behavior and financial well-being of Filipino teachers and further investigate the different factors related to these variables. A survey instrument was used to gather information from 1,245 teachers in public and private secondary schools in Metro Manila. Descriptive statistics revealed that teachers have a high level of financial literacy, attitude, behavior, and well-being. Structural equation modeling showed that financial literacy is significantly related to both financial behavior and financial well-being, while financial attitude is significantly related only to financial behavior but not to financial well-being. The study also revealed that financial behavior has the strongest effect on teachers' financial well-being, which also played a significant mediating role in the relationship of financial literacy and financial attitude to financial well-being. The results of the study and the validated instruments can contribute to the existing body of knowledge about the different financial outcomes. The study is significant to school organizations, financing institutions, and policymakers. The results can be used as a basis for creating policies and programs that will further improve the financial well-being of the teachers, which is important for the overall well-being of every individual.

Keywords: financial attitude, financial behavior, financial literacy, financial well-being, structural equation model.

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### 1. INTRODUCTION

With the current economic conditions and availability of technology, most teachers are facing financial problems. The use of credit cards, access to online shopping, and online and offline advertisements can contribute to their compulsive buying behaviors, affecting their financial well-being. In many countries, E-commerce (Balderaz & Campos, 2020) and mobile payment (Chen & Lai, 2023) are now becoming popular due to their usefulness and ease of use. Although there are advantages to using these technologies, they also have disadvantages, one of which is incurring debt to purchase. The purchase of these

technologies may contribute to the buying and spending behavior of teachers. Due to poor financial planning, many teachers have difficulty managing their finances because of debts and other loans. After working for many years, some failed to save for retirement. After retirement, they still work to get additional income to finance their basic needs and medical expenses. Their inability to save for retirement and emergency purposes may not be due to their low salary but probably their low financial literacy, resulting in negative financial behavior. Teachers must have good financial literacy and a positive attitude to better financial behavior and well-being.

Teachers being part of the school considered one of the financial socializing agents, play a significant role in preparing students for a better financial tomorrow. According to Taylor and Wagland (2013), there is a need to incorporate financial education in the basic education curriculum from kindergarten through grade 12. So, teachers are now given extra responsibility to educate students (Blue et al., 2014) regarding financial aspects.

Many pre-service teachers did not have meaningful experiences in personal finance during their secondary school and college life, and very few had significant experience in making personal decisions (Henning & Lucey, 2017). It was thus suggested that financial education should be given at an early stage to every person (Taylor & Wagland, 2013). Managing money and making financial decisions will be experienced considering some social factors. Although the curriculum and teaching experiences are perceived not to be enough to prepare teachers to become financially literate (Matheson et al., 2020), when teachers are given proper support and guidance, they will be successful in the implementation of financial education in the curriculum of the students to prepare them for a better and financially stable future.

In the Philippines, the teacher is one of the many professionals who receive a comparatively low salary. Sec. Briones, formerly of the Department of Education (2016-2022), wonders why teachers, especially those in the public sector, tend to over-borrow. Sadly, there are already more than 500 pending cases filed by different lending institutions versus the teachers (Philippine Regulation Commission). This problem of unpaid loans may result in the revocation of the teacher's license to teach and not getting their retirement pay. The current study assesses financial outcomes, such as financial literacy, attitude, behavior, and financial well-being. It sought to determine the relationships of the different latent variables and further investigated considering their characteristics.

Teachers are considered an important workforce in the society and their financial well-being should be given attention because this may contribute to their job satisfaction and quality of life. This study is conducted to generate information about the teachers' current level of financial literacy, financial attitude, financial behavior, and financial well-being which are important and can be used as basis for creating research-based policies, programs, and activities that will help improve their financial well-being. Teachers' financial well-being is one of the components of their total well-being that may affect their productivity as teachers. However, teachers with high levels of financial literacy and good financial attitudes will not guarantee that they will have good financial well-being. Aside from the validated instrument, this study can contribute to the body of knowledge about the mediating role of financial behavior in assessing the direct and indirect effects of financial literacy and financial attitude to financial well-being. Specific policy suggestions to improve the financial well-being of the teachers can be created based on the results of the study.

## 2. THEORETICAL BACKGROUND

### 2.1 Theoretical Framework

This study is anchored on the conceptual model of Gudmunson and Danes (2011) about financial socialization outcomes. Their model shows that the end goal of financial socialization processes is financial behavior and financial well-being through financial attitude, knowledge, and capabilities. In this study, the direct and indirect effects of financial literacy and financial attitude to financial well-being with financial behavior as a mediating variable were verified.

The study is in line with the priority research area of the Department of Education (DepEd) under the Basic Education Research Agenda (BERA), focusing on human resource development, specifically in the area of teachers' welfare. Assessing the different factors affecting the teachers' current financial behavior and well-being is important to generate information that can be used for policy formulation and in creating programs that will help improve the welfare of the teachers.

### 2.2 Literature Review

#### *Financial literacy*

Financial literacy means "understanding the value of money and how to maximize the benefits of money utilization" (Kadoya & Khan, 2020). It is "the ability to understand and analyze financial options, planning for the future, and responding appropriately to the events" (Taft et al., 2013). Young employees were found to have a moderate level of financial literacy (Sabri & Zakaria, 2015), while many people in developed and developing countries are financially illiterate (Kamakia et al., 2017).

Financial literacy is vital as one approaches retirement age, many of whom are responsible for their finances (Kamakia et al., 2017). Although many employees attend financial literacy sessions conducted in the workplace, what they learn is not reflected in their lives (Kamakia et al., 2017). Every individual must know how to manage their income correctly. People should know how to prepare a budget and record their expenses. They should know the purchasing power of money and the effect of tax laws on their income and expenses. It is also essential to know the different types of investments and the benefits of investment diversification. Organizations should invest in human resources by providing personal financial management to their employees to get a higher level of financial literacy (Idris et al., 2017). Financial literacy can help achieve a high productivity level for employees (Idris et al., 2017) and therefore, there is a need to find more effective approaches to teaching financial literacy.

Teaching is one of the many professions that are not so attractive to many because of financial issues. Teachers are receiving low salaries and limited benefits. However, many teachers are experiencing financial difficulties because of their low salary and their failure to manage their finances. In 2018, a study by World Bank revealed that many Filipinos have low financial literacy and cannot make sound financial decisions. This is why financial education is being integrated into the basic education curriculum. Teachers now play a more prominent role in improving the financial literacy of Filipinos, especially students. However, teachers will be more effective in imparting financial education to their students if they have an acceptable level of financial literacy, attitude, financial behavior, and financial well-being. de Guzman and Reginalde (2022) found that public school teachers have a high level of financial literacy but a low level of financial practices. Teachers are aware of the

importance of saving money and making investments, such as in life insurance (Abaya, et al., 2021). However, do they really save and invest?

According to Bouzidi and Benmoussa (2019), financial literacy is an important factor that should be given attention in order to face the challenges in modern society. However, Prasad and John (2021) found that only 23% of the teachers possess a higher level of financial numeracy skills. Professional and pre-service teachers have low financial literacy skills (Imelda et al., 2017) and a low level of financial literacy (Owusu, 2016). According to Zarate (2015), teachers are not well literate in managing their financial resources because they fail to organize and record their expenses. However, teachers were proven to have a moderate level of financial literacy skills because they carefully consider whether they can afford it before buying something, pay their bills on time, set long-term financial goals, and strive to achieve them (Cabigao, 2020).

Investigating the relationship between personal finance knowledge and financial behavior is now receiving greater attention (Sorgente & Lanz, 2017). Zulaihati et al. (2020) found that financial literacy has a significant influence on teachers' financial behaviors, such as their shopping behavior, long and short-term planning, and saving behavior, where the most significant impact of financial literacy is on saving behavior, while according to Martinez and Andal (2022), financial literacy and decision-making skills of teachers were positively related to their financial well-being, as well as their professional qualities. According to Eciija (2020), satisfactory financial well-being can happen when funds are available to meet financial obligations. Additionally, financial well-being is significantly related to financial management practices and financial capabilities.

On the contrary, Dwiastanti (2017) found that financial knowledge does not influence financial management behavior, which is consistent with Lianto and Sri Megawati (2017) that financial knowledge has no significant effect on mothers' financial behavior. Understanding financial concepts do not necessarily result in responsible financial behaviors (Tang et al., 2015). Widyastuti et al. (2016) revealed that financial literacy does not significantly influence the student teachers' attitude towards saving and that financial literacy has a significant influence on saving behavior. Due to the conflicting results, the study hypothesized that:

*H1: Financial literacy is significantly related to financial behavior.*

*H2: There is a significant positive relationship between financial literacy and financial well-being.*

### ***Financial Attitude***

"Financial attitude deals with the ability to manage finances, the interest of the individual in increasing financial knowledge, spending versus saving attitude and attitude toward taking risk while making an investment" (Haque & Zulfiqar, 2016).

Financial attitude was proven to influence financial management behavior (Herdjiono & Damanik, 2016), significantly impact financial management behavior (Ameliawati & Setiyani, 2018), and is the most influencing variable toward financial management behavior (Yap et al., 2018). Payne et al. (2014) established an association between financial attitudes and financial behaviors. Aside from financial behavior, Haque and Zulfiqar (2016) found that financial attitude affects financial well-being, as the financial attitude of women resulted in better financial well-being. Villagonzalo and Mibato (2020) found that the degree of financial attitude and level of financial management of the teachers

who participated in the study are generally positive. They also found that the financial attitude of the teachers is significantly related to their financial management. Contrariwise, Lianto and Sri Megawati (2017) found that financial attitude has no significant effect on the mothers' financial behavior, while Ismail et al. (2017) found no significant relationship between financial attitude and the financial behavior of Malaysian workers. Thus, this study hypothesized that:

*H3: Financial attitude is significantly related to financial behavior.*

*H4: There is a significant relationship between financial attitude and financial well-being.*

### ***Financial behavior***

Nowadays, globalization has both positive and negative effects on the financial behavior of many people (Ameliawati & Setiyani, 2018). People are now more concerned about how they spend, save, and invest their money to protect, maintain, or improve their living standards for extended periods (Sabri & Zakaria, 2015). Every individual must review their expenses regularly, limit their expenditures to the allowable budget, buy only necessary things, and consider financial capacity before borrowing money. Many people are experiencing financial difficulties due to their failure to save a portion of their income for emergency purposes and long-term goals. It is crucial to consult family members when making a financial decision, especially on possible investments such as bonds, stocks, and mutual funds.

According to Zemtsov and Osipova (2016), "financial behavior is the result of financial literacy and knowledge, financial attitudes, and financial management." Aside from financial attitude and financial literacy, other factors, such as financial socialization and experience, also positively influence financial management behavior (Ameliawati & Setiyani, 2018). According to Mohamed (2017), a positive correlation exists between young employees' financial behavior and financial well-being. According to Yap et al. (2018), financial management behavior was the most influencing variable toward financial satisfaction. This study hypothesized that:

*H5: There is a significant relationship between financial behavior and financial well-being.*

### ***Financial well-being***

Financial well-being is now becoming an interesting topic (Kamakia et al., 2017) and an area of focus for many researchers (Sorgente & Lanz, 2017). Robb and Woodyard (2011) described financial satisfaction and financial health as equivalent to financial well-being, measured through a subjective assessment of an individual's financial situation that focuses on their perception and feelings about their financial situation. The terms financial well-being and financial wellness and other terms such as financial satisfaction and economic well-being are used interchangeably (Delafrooz & Paim, 2011).

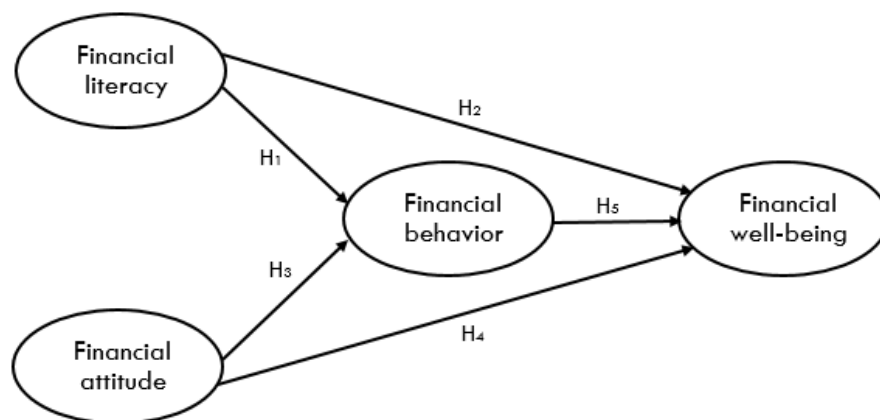
Studies on the financial well-being of young adults (Sorgente & Lanz, 2017), older people (Yin-Fah et al., 2010), employees (Sabri & Zakaria, 2015; Mokhtar et al., 2015; Mohamed, 2017), students (Shaulskiy et al., 2015), households (Chowa et al., 2014) were already conducted. Individuals with better financial well-being enjoy their lives because they can manage their money correctly, have enough for their current financial needs, buy things they want, handle unexpected expenses, and secure their financial future.

Financial wellness received greater attention in many countries, especially during financial crises (Mohamed, 2017). It is one of the components of an individual's well-being (Zemtsov & Osipova, 2016). However, young employees' financial wellness is only moderate (Sabri & Zakaria, 2015). Financial well-being can be improved by acquiring financial knowledge and skills (Kamakia et al., 2017).

Previous studies revealed that there are many factors related to financial well-being, such as financial knowledge and financial behavior (Mohamed, 2017), financial efficacy and financial satisfaction with remuneration (Vosloo, 2014), financial literacy, retention-money attitude, effort-money attitude, financial strain, and financial capability together with other personal factors such as gender and income (Sabri & Zakaria, 2015). Better financial well-being resulted in lesser financial concerns (Taft et al., 2013). Employers can contribute to the employees' financial well-being by providing financial literacy education needed to improve their financial efficacy (Vosloo, 2014). According to Zarate (2015), teachers have a low level of financial well-being because they are dissatisfied with their financial situation and worry about their finances in the future. Thus, more research should be conducted on teachers' well-being, including financial stability (Hall-Kenyon et al., 2014).

### 2.3 Conceptual Framework

**Figure 1:** *Conceptual Framework*



The conceptual framework shows the relationship between financial literacy, financial attitude, and financial behavior on financial well-being. It supposes a mediating effect of financial behavior on the effect of financial literacy and financial attitude on financial well-being.

## 3. METHODS

### Research Design

This quantitative study utilized a descriptive-correlational design. Descriptive statistics was used to describe teachers' financial attitudes, literacy, behavior, and well-being based on the information gathered. Further, correlational design was used to investigate the relationships among the latent variables.

### Sample Size and Sampling Technique

From the list of public and private schools in Metro Manila, a stratified random sampling technique was used to identify the schools where the target participants are affiliated. Schools from each division were classified according to level (elementary or secondary) and sector (private or public). Participating schools were chosen randomly from each category. Using G\*Power at a 95% confidence level, a statistical power of .80, and a small effect size, approximately 850 participants are expected to participate. The current study gathered data from 1,245 public and private school teachers.

### **Instrumentation**

The researcher-developed survey instrument was used to gather data. It was divided into five parts. Part 1 is for getting the demographic and financial characteristics of the participants. Part 2 is for financial literacy, part 3 is for financial attitude, part 4 is for financial behavior, and part 5 is for financial well-being. Statements were used as indicators of the four latent variables and were assessed using a 6-point Likert scale. Content validity and internal reliability testing were conducted to ensure that the instruments used would correctly measure what they were expected to measure. The instruments were administered to a group of teachers having the same characteristics as the actual participants for pilot testing where the computed Cronbach alpha was acceptable.

### **Data Gathering Procedure**

Actual data gathering started after pilot testing. A letter of intent was provided to explain the purpose of the study and allow the participants to get involved freely without force and intimidation. Endorsement letters were requested from the regional and division offices for the public school sector before distributing the survey questionnaire to the target schools. For private schools, letters were provided to the school principals indicating the purpose of the study.

### **Ethical Consideration**

This study considered the ethical aspects of research and ensured that the study was conducted in a responsible and respectful manner. The study obtained informed consent from the participants, ensured that the participants' privacy is well protected and kept confidential, participants were far away from harm and exploitation. They were also informed that their participation is on a voluntary basis and that they can withdraw any time they want once they have the feeling of discomfort. The researchers ensured that this study was conducted in an ethical and responsible manner taking into consideration the rights and welfare of the participants.

### **Data Analysis**

Statistical Package for Social Sciences (SPSS) version 24 was used to process and analyze the data. Frequency, percentage, mean, and standard deviation were used to present the descriptive statistics of the study. In addition, the structural equation model (SEM) was performed using an Analysis of Moment Structure (AMOS) package to determine the causal relationships between the variables investigated in the study.

## **4. RESULTS**

### **Descriptive Statistics of the Different Financial Outcomes**

**Table 1:** Descriptive statistics of the financial outcomes

<b>Financial Literacy</b>		Mean	SD
FL1	I know how to manage my money.	5.00	.954
FL2	I know how to prepare a personal income and expense budget.	4.97	.953
FL3	I am aware of the impact of inflation on the purchasing power of money.	5.00	.998
FL4	I am aware of the effect of the current tax laws on my income and expenditures.	4.96	1.054
FL5	I am aware of financial products and services such as bonds, stocks, mutual funds.	4.67	1.188
FL6	I am aware of the benefit of diversification in investment.	4.56	1.270
Overall		4.856	.851
<b>Financial Attitude</b>			
FA1	I should concentrate on the present and the future when managing my finances.	5.44	.766
FA2	Financial planning for retirement is necessary for assuring one's security during old age.	5.40	.823
FA3	Having a financial plan makes it easy to make better financial decisions.	5.41	.796
FA4	Having savings is very necessary to meet one's financial needs.	5.46	.779
FA5	It is essential to plan for the possible disability of a family wage earner.	5.36	.849
FA6	Budgeting is necessary to determine how to prioritize one's expenses.	5.51	.772
FA7	Keeping records of financial matters is important.	5.35	.830
FA8	An employee needs to develop a pattern of saving and stick to it.	5.37	.847
Overall		5.408	.623
<b>Financial Behavior</b>			
FB1	I compare prices when purchasing products or services.	5.47	.833
FB2	I do not buy products or services on impulse.	4.92	1.079
FB3	I pay all my financial obligations on time.	5.21	.906
FB4	I keep a record of my expenses.	4.79	1.200
FB5	I limit my expenses within my budget.	5.08	.998
FB6	I review and evaluate spending regularly.	4.95	1.028
FB7	I buy something using cash or credit card based on necessity.	4.90	1.297
FB8	I consider my financial capacity before borrowing money or using a credit card.	5.15	1.094
FB9	I save a portion of my income regularly	4.89	1.155
FB10	I save for my long-term goal.	4.94	1.150
FB11	I maintain an emergency savings fund.	4.85	1.175
FB12	I always save a portion of my income before spending.	4.83	1.165
FB13	I invest money in bonds, stocks, mutual funds, etc.	3.96	1.715
FB14	I always look for possible investment opportunities.	4.45	1.435
FB15	I discuss with family members before making investment decisions.	4.53	1.440
Overall		4.856	.771
<b>Financial Well-being</b>			
FW1	I could handle a major unexpected expense.	4.68	1.151
FW2	I am secure of my financial future.	4.50	1.264
FW3	I feel I can buy the things I want in life.	4.30	1.317
FW4	I enjoy life because of the way I manage my money.	4.60	1.180
FW5	I have enough for my current financial needs.	4.58	1.212
FW6	I can easily borrow money due to a good credit standing.	4.66	1.252
Overall		4.550	1.011

Results from Table 1 revealed that teachers' financial literacy, in general, is high ( $M = 4.856$ ,  $sd = 0.851$ ). Among the indicators of financial literacy, the teachers know how to manage their money ( $M = 5.00$ ,  $sd = 0.954$ ), and their awareness of the impact of inflation on the purchasing power of money ( $M = 5.00$ ,  $sd = 0.998$ ) obtained the highest mean ratings.

Table 1 also shows that teachers' financial attitude, in general, is high ( $M = 5.408$ ,  $sd = 0.623$ ). Among the indicators, "budgeting is necessary to determine how to prioritize one's expenses" ( $M = 5.51$ ,  $sd = 0.772$ ), and "having savings is very necessary to meet one's financial needs" ( $M = 5.46$ ,  $sd = 0.779$ ) were given the highest ratings.

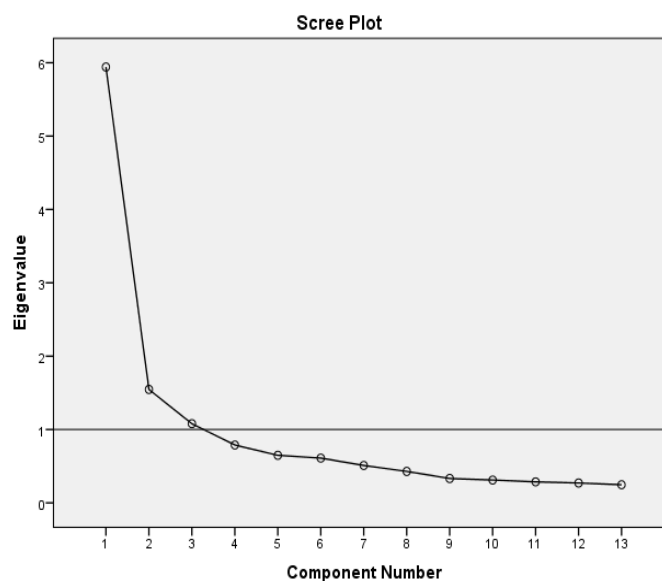


Teachers' financial behavior, in general, is highly favorable ( $M = 4.856$ ,  $sd = 0.771$ ). Among the indicators, "I compare prices when purchasing products or services" ( $M = 5.47$ ,  $sd = 0.833$ ) and "I pay all my financial obligations on time" ( $M = 5.21$ ,  $sd = 0.906$ ) obtained the highest ratings. On the other hand, the indicator "I invest money in bonds, stocks, mutual funds, etc." obtained the lowest mean score ( $M = 3.96$ ,  $sd = 1.715$ ).

The teachers' financial well-being is high ( $M = 4.550$ ,  $sd = 1.011$ ). The highest indicators are those on their ability to handle major unexpected expenses ( $M = 4.68$ ,  $sd = 1.151$ ) and that they could easily borrow money due to a good credit standing ( $M = 4.66$ ,  $sd = 1.252$ ).

### Scree Plot of Financial Behavior

**Figure 2:** Scree plot of financial behavior



Data reduction for teachers' financial behavior indicators using exploratory factor analysis was made. The scree plot shown in Figure 2 revealed that the 13 items used for measuring financial behavior were reduced to 3 dimensions considering eigenvalues greater than 1. Using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy ( $KMO = 0.905$ ) and Bartlett's Test of Sphericity (Approx. Chi-Square = 8033.125,  $df = 78$ ,  $p = 0.000$ ) indicated that data reduction could be conducted.

### Exploratory factor analysis of respondents' financial behavior

Using principal component analysis as the extraction method and Varimax with Kaiser normalization as the rotation method, the exploratory factor analysis for the 13-item used for measuring the teachers' financial behavior results in 3 sub-dimensions. These are saving (4 items), spending (6 items), and investing (3 items) behavior of teachers. Two items were removed due to low factor loadings.

The indicators of the saving behavior having factor loadings range from 0.759 to 0.822 with a reliability coefficient of 0.896, and 45.703% variance explained. Spending behavior indicators have factor loadings ranging from 0.618 to 0.727 with a reliability coefficient of 0.816 and an 11.896% variance explained. While indicators of investing behavior have factor loadings ranging from 0.762 to 0.850 with a reliability coefficient of 0.825 and 8.301% variance explained. The three dimensions can explain 65.90% of the

variability of financial behavior with eigenvalues greater than 1. Among the three resulting dimensions, the teachers obtained the highest mean score in spending behavior (5.071,  $sd = .731$ ) and the lowest in investing behavior ( $M = 4.313$ ,  $sd = 1.320$ ).

**Table 2:** *Exploratory factor analysis of teachers' financial behavior*

Indicators		Factors		
		Saving	Spending	Investing
FB9	I save a portion of my income regularly	.822		
FB10	I save for my long term goal.	.807		
FB11	I maintain an emergency savings fund	.799		
FB12	I always save a portion of my income before spending.	.759		
FB5	I limit my expenses within my budget.		.727	
FB6	I review and evaluate spending on a regular basis.		.716	
FB1	I compare prices when purchasing products or services.		.659	
FB2	I do not buy product or service on impulse.		.639	
FB3	I pay all my financial obligations on time.		.653	
FB4	I keep a record of my expenses.		.618	
FB14	I always look for possible investment opportunities.			.850
FB13	I invest money in bonds, stocks, mutual funds, etc.			.808
FB15	I discuss with family members before making investment decisions.			.762
Eigenvalue		5.941	1.546	1.079
% of Variance		45.703	11.896	8.301
Cumulative % of Variance		45.703	57.599	65.900
Cronbach's Alpha		0.896	0.816	0.825
Mean		4.878	5.071	4.313
Standard deviation		1.014	.731	1.320

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

## Measurement Model

**Table 3:** *Test of reliability of financial literacy, attitude, behavior, and well-being*

Latent Variable	Mean	SD	Number of Items	Cronbach's Alpha
Financial Literacy	4.856	.851	6	.881
Financial Attitude	5.408	.623	8	.900
Financial Behavior	4.754	.854	3	.746
Financial Well-being	4.550	1.011	6	.904

Cronbach's alpha was used to determine the internal consistency of the indicators of the different latent variables. Table 3 showed that the 6-item indicators used to measure financial literacy have an overall mean of 4.856 and an acceptable reliability coefficient of 0.881. The 8-item indicators used to measure financial attitude have a mean of 5.408 and an acceptable reliability coefficient of 0.900. The original 15-item indicators used to measure financial behavior resulted in 3 dimensions with an overall mean of 4.754 and an acceptable reliability coefficient of 0.746 after removing 2 items with low factor loadings. The 6-item indicators for measuring financial well-being have an overall mean of 4.550 and a reliability coefficient of 0.904.

**Table 4:** CR, AVE, MSV, and correlations of financial literacy, attitude, behavior, and well-being

	CR	AVE	MSV	Financial Literacy	Financial Attitude	Financial Behavior	Financial Well-being
Financial Literacy	0.870	0.532	0.296	(0.729)			
Financial Attitude	0.896	0.519	0.161	0.336***	(0.720)		
Financial Behavior	0.791	0.563	0.467	0.544***	0.402***	(0.750)	
Financial Well-being	0.905	0.616	0.467	0.489***	0.284***	0.684***	(0.785)

CR: Composite reliability, AVE: Average variance extracted, MSV: Maximum share variance. The diagonal numbers enclosed in parenthesis are the square root of AVE.

Table 4 shows that the composite reliability coefficients are greater than 0.70 and the average variance extracted (AVE) is greater than 0.50. The table also shows that the square of AVE, which are the values enclosed in parenthesis, is greater than the correlation coefficients in the same column and row.

**Table 5:** Confirmatory factor analysis of financial literacy, attitude, behavior, and well-being

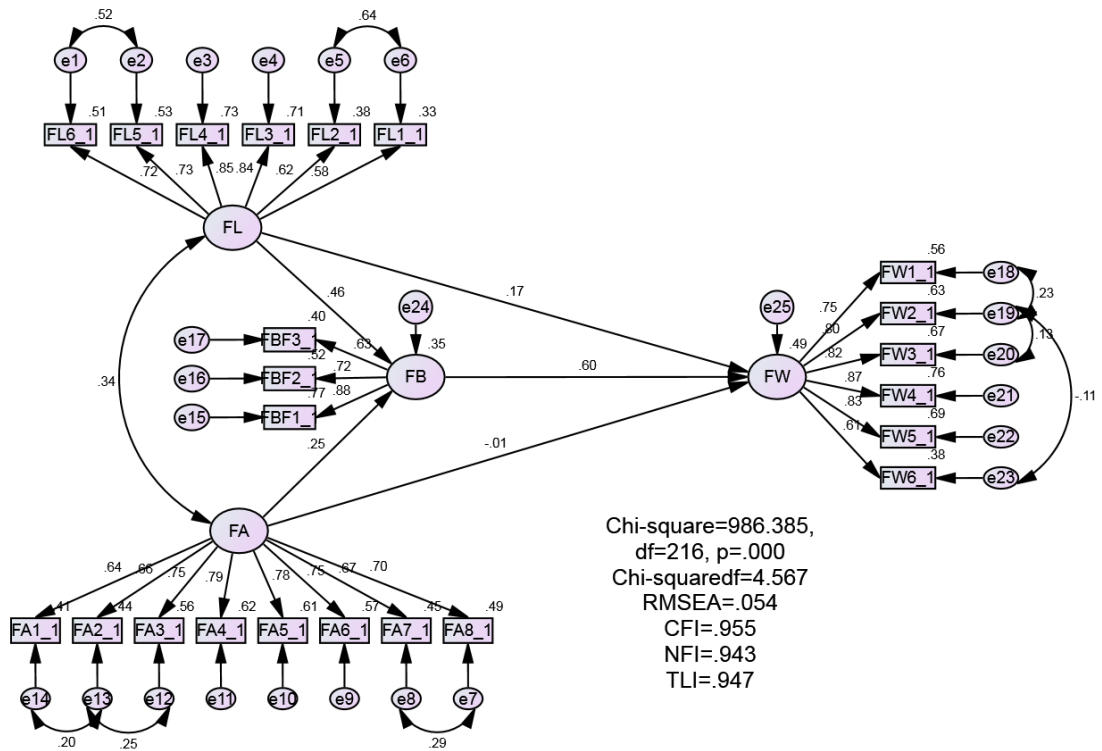
	Factor Loading
<b>Financial Literacy</b>	
FL1	0.575
FL2	0.618
FL3	0.840
FL4	0.853
FL5	0.728
FL6	0.718
<b>Financial Attitude</b>	
FA1	0.643
FA2	0.660
FA3	0.745
FA4	0.788
FA5	0.779
FA6	0.755
FA7	0.674
FA8	0.702
<b>Financial Behavior</b>	
FBF1 Saving Behavior	0.877
FBF2 Spending behavior	0.720
FBF3 Investing behavior	0.633
<b>Financial Well-being</b>	
FW1	0.747
FW2	0.796
FW3	0.819
FW4	0.872
FW5	0.833
FW6	0.615

The results of the confirmatory factor analysis shown in Table 5 revealed that the indicators are contributing significantly to measuring each latent variable. The factor loadings for financial literacy range from .575 to .853, .674 to .788 for financial attitude, .633 to .877 for financial behavior, and .615 to .872 for financial well-being. Different model fit indices were used to obtain the acceptable CFA model. Chi-square = 986.385, df = 216, chi-square/df = 4.567, comparative fit index (CFI) = 0.955, standardized root mean squared residual (SRMR) = 0.061, root mean square error of approximation (RMSEA) = 0.054,

normal fit index (NFI) = 0.943, Tucker-Lewis Index (TLI) = .947, and probability of close fit (Pclose) = .042 indicated excellent CFA model fit in general.

**Structural Model**

**Figure 3: Emerging model**



Different model fit indices were also used in assessing the measurement and structural model. Chi-square = 986.385, df = 216, chi-square/df = 4.567, comparative fit index (CFI) = 0.955, standardized root mean squared residual (SRMR) = 0.061, root mean square error of approximation (RMSEA) = 0.054, normal fit index (NFI) = 0.943, Tucker-Lewis Index (TLI) = .947, and probability of close fit (Pclose) = .042 indicated an excellent model fit in general. The structural model was used to prove the different hypotheses.

The resulting model revealed that financial behavior is significantly related to financial literacy ( $\beta = .46, p < .05$ ) and financial attitude ( $\beta = .25, p < .05$ ). It also showed that financial well-being is significantly related to financial literacy ( $\beta = .17, p < .05$ ) and financial behavior ( $\beta = .60, p < .05$ ) but not to financial attitude ( $\beta = -.01, p > .05$ ). The structural model also revealed that there is a significant correlation between financial literacy and financial attitude ( $r = .34, p < .05$ ).

Table 6 shows the unstandardized regression estimate obtained from the structural model and the probability values used to determine whether the hypotheses were supported. It showed that all the hypotheses were supported except H4. Accordingly, financial literacy and attitude are significantly related to financial behavior, while financial behavior has a significant relationship with financial well-being. There is also a positive significant

relationship between financial literacy and financial well-being, and between financial literacy and financial attitude.

**Table 6:** *Unstandardized Regression Weights and Covariance*

Independent variable	Dependent variable	Estimate	S.E.	C.R.	P	Decision
H1 Financial Literacy	→ Financial Behavior	.398	.029	13.689	***	Supported
H3 Financial Attitude	→ Financial Behavior	.321	.041	7.839	***	Supported
H2 Financial Literacy	→ Financial Well-being	.159	.031	5.119	***	Supported
H4 Financial Attitude	→ Financial Well-being	-.018	.040	-.453	.651	Not supported
H5 Financial Behavior	→ Financial Well-being	.654	.044	14.781	***	Supported
Financial Literacy	↔ Financial Attitude	.184	.020	9.306	***	

### Sobel's Test

**Table 7:** *Indirect effect of financial literacy and financial attitude on financial well-being*

Independent variable	Dependent variable	Sobel Test	P	Decision
Financial Literacy	→ Financial Well-being	10.08	***	Significant
Financial Attitude	→ Financial Well-being	6.93	***	Significant

\*\*\* significant at  $p < 0.001$

The indirect effect of financial literacy and financial attitude on financial well-being through financial behavior was analyzed using Sobel's test. Results revealed that the indirect effect of financial literacy and financial attitude to financial well-being through financial behavior are both significant.

## 5. DISCUSSION

### Financial Literacy

The study emphasizes the importance of financial literacy in individuals' lives, particularly among teachers. The teachers' financial literacy can be described as "their ability to understand and analyze financial options, plan for the future, and make appropriate financial decisions." The result of this study is consistent with previous research that highlights the significance of financial literacy in promoting responsible financial behavior and enhancing financial well-being (Kadoya & Khan, 2020; Taft et al., 2013).

In this study, results revealed that teachers demonstrated a high level of financial literacy, with indicators, such as understanding how to manage money, preparing personal budgets, and being aware of the impact of inflation and tax laws on finances receiving high mean scores. It shows that teachers possess a good foundation of financial knowledge, which is crucial for making informed financial decisions. The significant relationship of financial literacy with financial behavior is supported by the significant positive association found in the structural model (H1) and this is aligned with the existing literature that suggests higher financial literacy leads to more responsible financial behaviors (Zulaihati et al., 2020).

Moreover, the significant positive relationship of financial literacy with financial well-being (H2) highlights the role of financial knowledge in improving individuals' overall

financial satisfaction. The result indicated that a higher level of financial literacy can help individuals effectively manage their finances, make better investment decisions, and secure their financial future, all of which contribute to greater financial well-being (Kamakia et al., 2017; Martinez & Andal, 2022).

### **Financial Attitude**

The financial attitude of the teachers encompasses their beliefs and attitudes toward financial management, risk-taking, and planning for their future. Results of this study showed that teachers exhibit a positive financial attitude, as indicated by their inclination toward financial planning, saving, and recognizing the importance of budgeting. The result of the structural equation model confirms the significant relationship of the financial attitude of the teachers with their financial behavior (H3) and supported the existing literature about the relationship between financial attitudes and financial behaviors (Payne et al., 2014; Yap et al., 2018).

The study investigated the direct relationship of financial attitude with financial well-being and did not find a significant result to prove H4. However, this result supported some previous studies that have shown inconsistent results about relationships between financial attitude and financial well-being (Lianto & Sri Megawati, 2017; Ismail et al., 2017). This insignificant relationship between financial attitude and the financial well-being of teachers indicated that while the financial attitude of teachers is important in shaping their financial behaviors, its impact on their overall financial well-being might be mediated by other factors such as financial behavior itself.

### **Financial Behavior**

Teachers' financial behavior encompasses various aspects of financial decision-making, including saving, spending, and investing practices. The results of this study highlight the multidimensional nature of financial behavior, as evidenced by the emergence of three distinct sub-dimensions: saving behavior, spending behavior, and investing behavior. The three dimensions capture teachers' diverse financial practices and provide insights into their financial decision-making processes.

The result of the structural equation model also confirms the significant positive relationship between financial behavior and financial well-being (H5). This result emphasizes the importance of responsible financial practices in achieving financial satisfaction and overall well-being. This result indicated that teachers who have unfavorable financial behaviors, such as lower engagement in regular saving, budgeting, and informed investing, are less likely to experience positive financial well-being outcomes and vice-versa. The significant positive relationship between financial behavior and financial well-being is consistent with previous research that underscores the importance of financial behavior in determining individuals' financial well-being (Mohamed, 2017; Zemtsov & Osipova, 2016).

### **Financial Well-being**

The teachers' financial well-being represents their perceptions and feelings about their financial situation, including their ability to manage unexpected expenses, secure their financial future, and enjoy their lives. The teachers' confidence in handling unexpected expenses and their perception of financial security indicated that teachers generally possess a high level of financial well-being.

The result of the structural equation model confirms the positive relationship of financial literacy and financial behavior with financial well-being (H2, H5), which implies that teachers who are financially knowledgeable and engage in responsible financial behaviors have a higher likelihood to experience better financial well-being outcomes. The current result supported the existing literature that emphasized the importance of improving financial knowledge and adopting responsible financial practices to enhance financial well-being (Kamakia et al., 2017; Mohamed, 2017).

After analyzing the complex interplay between the different financial outcomes such as financial literacy, financial attitude, financial behavior, and financial well-being among teachers, the results of the study underscore the importance of financial literacy and responsible financial behaviors in promoting positive financial well-being outcomes.

## 6. CONCLUSION AND RECOMMENDATIONS

In conclusion, the results of this study feature several key insights about the different financial outcomes, namely: teachers' financial literacy, attitude, behavior, and well-being. First, teachers exhibit a commendable level of financial literacy, particularly excelling in understanding money management and the impact of inflation on purchasing power. Second, the teachers' positive financial attitude underscores the significance of budgeting, savings, and future planning. Third, while teachers generally engage in favorable financial behaviors, the study indicates a need for improvement in investment behavior. Fourth, teachers have a relatively high level of financial well-being, particularly in managing unexpected expenses and accessing credit due to good credit standing.

The result of exploratory factor analysis revealed three dimensions of financial behavior, namely: saving, spending, and investing. This result provided a more comprehensive understanding of how teachers approach financial decisions. The confirmatory factor analysis demonstrated that the measurement model effectively captures the underlying constructs, with good model fit indices. This indicated that the 15-item reduced to 3 dimensions can really measure financial behavior and can be adapted or adopted for conducting related studies.

The results of the structural equation model revealed that financial attitude and financial behavior are important factors in determining the financial behavior and financial well-being of the teachers. To be more effective, teachers must have good financial literacy, a positive financial attitude, positive financial behavior, and well-being. However, having good financial literacy and a positive financial attitude is not an assurance of better financial well-being. Teachers must apply what they know. Financial literacy and financial education for financial well-being will be more potent if they have positive financial behavior. Teachers should have good spending, saving, and investing behaviors to meet their current financial needs and be more financially secure, especially after retirement. They should also know how to protect their families if unfavorable incidents happen.

Based on the results of the study, several recommendations are proposed to enhance teachers' financial well-being and promote informed financial decision-making. First, creating financial literacy programs to help teachers manage their income properly. Teachers should be oriented on the proper use of credit cards to avoid debt traps in the future. There is also a need to help teachers be familiar with the different types of investment and be aware of the advantages of investment diversification. Second, integrating a more comprehensive financial education into the curriculum for teachers' professional development programs.

This action can equip teachers with stronger financial literacy skills that will enable them to manage their financial resources and to effectively share their financial skills with students. Third, establishing regular training sessions and workshops to improve teachers' financial behavior and investment knowledge. Regular and continuous training can cultivate practical financial skills and encourage responsible financial decisions. Fourth, developing and implementing financial wellness programs for teachers, offering resources and guidance on budgeting, saving, investing, and managing financial stress. These programs can contribute to teachers' overall well-being and job satisfaction. Fifth, creating repositories of financial resources and tools within schools fosters a culture of financial literacy and knowledge-sharing among teachers and students. Sixth, partnering with financial institutions to provide teachers with specialized financial education programs, workshops, and resources. These financial experts can contribute insights into investment opportunities and long-term financial strategies. Seventh, developing programs encouraging family involvement in financial decision-making and planning. This family-oriented approach can strengthen financial behavior by promoting collective financial planning. Eighth, establishing retirement planning resources and workshops for teachers, ensuring their financial security during retirement. Ninth, continuous review and upgrading of the teachers' salaries and benefits of the teachers both from the public and private sectors. This is to ensure that their salaries are competitive and can match the inflation rate. Providing additional benefits such as health insurance, better retirement plans, and offering investment opportunities may contribute to their overall financial well-being.

Incorporating these recommendations into policy formulations both at the local and national levels, educational institutions can foster a financially literate and empowered educational community, which is ultimately beneficial to the teachers, students, and society. Additionally, the results of the study and the validated instruments can contribute to the existing body of knowledge and can be used by other researchers when conducting related studies.

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