

Behavioral Finance and Financial Literacy: An Evaluation for Teachers**

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Abstract: According to behavioral finance theories, people are considered as individuals who act through their emotions. As a result of this emotions, individual investors resort to certain Cognitive Biases and Heuristics in their investment decisions. These Cognitive Biases and Heuristics affect the financial investment decisions of teachers. A teacher is a role model for the students. So, it is necessary to analyze the financial literacy and investment behaviors of teachers, which are not adequately examined in the literature. The aim of this study is to determine the investment preferences of teachers, to reveal their Cognitive Biases and Heuristics, and to determine the relationship between investment preferences and financial behaviors. The universe of the research consists of teachers working in public and private schools in Turkey. The sample was determined randomly, and the data were obtained from 517 teachers by online and face-to-face survey. The data were subjected to different statistical tests by the SPSS. Findings show that Cognitive Biases and Heuristics are effective in teachers' financial decisions. Results show that the teachers who got financial education more prone to make more rational financial decisions. Therefore, we understand the teachers should be educated in financial topics more to educate the students financially.

Keywords: Behavioral Finance, Heuristic, Cognitive Biases, Investor behavior, Teacher

1. Introduction

Nowadays, individuals make decisions in an environment where there are many factors when making an investment decision. Individual beliefs and attitudes, the effects of people around them, the opinions of other investors, the news on social media, the opinions of experts, the previous performance of the investment vehicle are usually effective in the investment decisions of individuals. The investment choice here is far from professional, it is based on personal experience and opinions. However, traditional financial theories argue that individuals make rational decisions that can provide maximum benefit in their financial investment decisions [1] (p. 47). These factors, which are effective in people's investment preferences, contradict traditional financial theories. Traditional financial theories are based on the fact that people collect information about investment instruments in detail before making an investment decision and invest in the securities with low risk and high return.

The foundations of the traditional theory of finance were laid down by Daniel Bernoulli in the 1700s. As a result of his studies in the following years, he put forward the concept of average benefit and the "expected utility theory" [2] (p. 24). Von Neumann and Morgenstern, who based Bernoulli's theory but differentiated from expected benefit theory by rationally calculating expectation for the first time, axiomized that they could make

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a rational choice with the expected benefit in their study. According to the theory, a rational being, a person, is a hypothetical being free from his emotions, acting on his own interests and aiming to maximize his benefit in investment decisions [3]. Savage [4] developed the “subjective expected benefit theory” in his study and gave a new dimension to the expected benefit theory in classical financial theories. In later years, Fama [5] introduced the efficient market hypothesis. According to the hypothesis, the past movements of the markets cannot be used to predict future price movements. Traditional finance continued in the following periods with the Bayesian learning theory developed by the English mathematician. In the theorem, the data of previously realized events are used to predict the uncertainties of the future. Statistical science was used in these data and probabilities were calculated [6] (p. 9).

The expected value theory, which has been used for many years in the history of traditional finance, has started to receive serious criticism with experimental studies conducted after the 1950s. The first of these criticisms was revealed by an experiment conducted by Maurice Allais in 1953. In this paradox, which is called the Allais Paradox, he emphasized that the factors that are effective in the decisions that individuals will make should be questioned and that the concept of cognitive psychology should also be addressed [7] (p. 367). By 1961, Daniel Ellsberg introduced the Ellsberg Paradox with the concept of uncertainty avoidance. The person described by traditional finance is the one who makes rational decisions, is stable and strives to maximize his utility. However, human behavior is mostly not realized in this way. The concept of behavioral finance (neurofinance) emerged upon the understanding that the anomalies that affect people's preferences may be caused by human psychology [8] (pp. 21-22). It has been understood that the individuals depicted in the expected benefit and effective markets theories which human psychology is ignored, are not always rational in their decisions. In addition, Kahneman and Tversky [9] put forward the “Prospect Theory” (Prospect Theory) and laid the foundations of behavioral finance. According to Kahneman and Tversky [9], people tend to avoid risk and there are some cognitive and emotional tendencies that cause these tendencies.

With the realization of the history of finance in this way, people make decisions by acting in a number of attitudes and behaviors when making financial decisions (investment decisions) today. It is expected that teachers who make financial investment decisions, like other people, make decisions with certain prejudices, attitudes and tendencies. It may also be the case that teachers transfer these prejudices, attitudes and tendencies that they have to the people around them or to the students during or after the lesson. In this case, the teacher can influence the decisions that they will make about the people around them or the students. Because of the role of the teacher in our society, the ability to get an idea about a subject, use their experience and influence people or students around them due to the fact that they are considered experts is high. Therefore, in this study, it was aimed to determine the attitudes of teachers when making financial investment decisions and to examine their financial preferences and which financial instruments they invest in with these existing attitudes.

1.1. Financial Literacy

Individuals exhibit their behavior according to certain decisions before spending or investing. Among these decisions, financial attitudes occupy an important place. Individuals use the available financial information or are influenced by information from outside when exhibiting these financial attitudes. The current financial knowledge is one of the elements of the financial literacy according to the literature. Financial literacy is the ability of a person to understand basic financial concepts such as saving, investing, budgeting and borrowing, make the right financial decisions, and control his/her personal situation through planning [10] (p. 289). While these financial capabilities are being formed, channels such as experiences, news channels, opinions of people around them, social media

can be effective. As a result, the ability to control the personal situation can be caused by a person's attitudes and perceptions.

The vast majority of investments made in everyday life are carried out by non-professional individual investors. House, land, car buying, bank deposits, gold, foreign exchange, equities, crypto currency, such as the use of different instruments, as also in your investment portfolio, individual investors often by relying on personal knowledge and experience, investment decision they have. The situation that individual investors ignore here is that investments that fall outside of daily purchases must be made within the framework of knowledge and experience. In cases where this requirement is not met, regret and losses are inevitable. Financial literacy, which has become a popular topic in recent years, is mainly aimed at ensuring that individual investors act consciously and systematically in their investment decisions. Huston [11] defines financial literacy as a measure of people's ability to have and use financial information in their financial decisions. According to Emmons [12], an individual with financial literacy should be able to manage their cash resources well, track their payments effectively, and have basic information about what they need to do for their savings. Vitt, et al [13] defined individual financial literacy as the ability to read, manage, analyze and communicate financial situations that affect material conditions.

By the increasing diversification of instruments in financial markets, investing in financial markets has become an area that requires more knowledge and accumulation every day. In addition, the economic crises and contractions taking place on Earth affect not only the individuals living in those countries, but also the individuals living in other countries. Individuals who are economically affected by these situations tend to protect their existing income, use it effectively, and save more. In these behaviors of individuals, the concept of financial literacy becomes important. Having basic knowledge and competence in financial matters demonstrates financial literacy. Education is a tool for the formation of the knowledge and competence capacity of the individual [14] (p. 71). In other words, in a society, the lack of trainings on saving people prevents the financial markets in that country from being at the desired level [15] (p. 102). Studying financial issues can positively affect the financial attitude of individuals by improving the level of financial literacy. In many studies conducted, it is proved that as the level of financial literacy of people improves, the effectiveness of financial markets also increases at this rate. In summary, financial literacy allows individuals to follow an effective and efficient path in the process from their savings to their investments. In order to have financial literacy, individuals need to have an effective financial education and acquire financial skills. One of the easiest ways to provide financial education to individuals is to provide it to people in the basic education process.

1.2. Literature Review

Kudryavtsev et. al. [16] found that investors with high market experience exhibited more acceptable levels of behavioral tendencies in their study, and the degree of relationship between behavioral tendencies was high for each investor category. However, it has been concluded that the degree of relationship between the behavioral tendencies of investors with high investment experience is higher than those with low investment experience. Capuano and Ramsay [17] concluded that insufficient financial literacy, insufficient savings, personal, social and psychological factors cause investors to make non-optimal investment decisions. Therefore, the authors [17] suggest that a solution to these non-rational behaviors can be found by obtaining financial education for avoidable, non-rational financial behaviors caused by behavioral tendencies and short cuts and, as a result, increasing financial literacy.

Kalra Sahi and Pratap Arora [18], using clustering analysis, found that the educational status of Indian individual investors did not statistically differ in the formation of behavioral clusters in their study. In their studies, Sezer [19] and Öncü and Özevin [20]

concluded that individual investors investing in Turkey have low levels of financial literacy and cognitive ability, as a result of which individuals are heavily exposed to psychological trends in their investment preferences. Sezer [19] stated that women's short-term (heuristic) level of influence is moderate, their tendency to avoid loss/regret is strong, and there is no effect of overconfidence. Öncü and Özevin [20] determined in their study that women's investment habits are more affected by psychological tendencies than men's, and that the psychological tendencies that individuals are most exposed to in Turkey are anchoring and familiarity, and that investors have an incomplete or excessive reaction to news from the market. Saraç and Kahyaoğlu [21] concluded in their study that socio-economic and demographic factors are effective in the risk-taking behaviors of individual investors who trade on the Borsa Istanbul (ISE). In their study, Sefil and Çilingiroğlu [1] explained the cognitive and emotional tendencies that are involved in behavioral finance models and are effective in decision making. Altınırmak and Eyüboğlu [22] concluded that economic crises that cannot be explained by the theories described by traditional finance can be explained by the theories addressed by behavioral finance in their study. Küçük [23] examined the factors that affect the financial investment decisions of individual investors investing in Osmaniye Province within the framework of behavioral finance and concluded that individual investors behave in accordance with behavioral finance theories in their investment decisions. Gümüş, Koç and Agalarova [24] analyzed the demographic and psychological factors that affect the investment decisions of individual investors in their study applied in Turkey and Azerbaijan and concluded that the demographic factors of people are effective in their investment preferences. Karabulut [25], which is opposed to the expected utility theory, expectation theory, in the framework of consumers' perceived risk on internet shopping trends across on which theory of the effect of the variable used in this study compared to the study individuals expectation theory the expected utility theory as a result of risk aversion in shopping online has reached the conclusion that in their description is more than adequate. Bayazit Hayta [26] concluded that there are psychological factors in the investment preferences of individual investors by considering the psychological trends that are effective in the perception of financial risk of individual investors in the form of a review in her study. Ateş [27], in his study on the evaluation of financial investments in terms of behavioral finance, concluded that individual investors show heuristics and psychological biases in their investment decisions. Jahanzeb and Muneer [28], in their study on the effects of behavioral finance on individuals' investment decision making, concluded that there are illusions that affect the decision-making process in the investment decision and that these illusions shed light on the necessary investment initiatives.

Looking at the studies on the investment preferences of individual investors, it is seen that investment vehicles with a low risk are more preferred by investors as a whole. This situation is highlighted in the studies of Bozkuş and Üçdoğruk [29], Hamarat and Özen [30], Karataş and Gavcar [31], Laurine, Le Roux, Canicio [32], Saraç and Kahyaoğlu [21] and Usul, Bekçi and Eroğlu [33]. Hamarat and Özen [30] found that investment instruments such as foreign exchange and gold have a low sensitivity to income, while stock market investments with a high risk vary depending on income. The studies of Bozkuş and Üçdoğruk [29] and Karataş and Gavcar [31] also highlight gold and foreign exchange investment instruments as the most reliable investment instruments. According to Usul, Bekçi and Eroğlu [33] determined that investors give less space to investments in stocks with high risk, and as income and education levels increase, risky investments also increase. The authors also determined that men prefer risky investments more than women. According to Laurine, Le Roux, Canicio [32] and Saraç and Kahyaoğlu [21] also determined in their studies that age, gender and educational status affect the level of risk taken in investments.

2. Materials and Methods

2.1. Aim

The aim of this study is to determine the current financial attitudes of teachers (literacy level) and to reveal the differences of their financial attitudes according to demographic characteristics and financial investment preferences. The sub-objectives of the study are as follows:

- To reveal whether teachers receive training or courses on financial issues.
- To determine whether savings are made on a part of income.
- To reveal whether financial investments are made with these Savings.
- To determine which financial instruments are invested in, if any, are invested in.
- To determine the financial attitudes of teachers and to reveal the differences of the existing financial attitudes.

2.2. The Importance, Limitations and Assumptions of the Research

Nowadays, people make decisions by acting in a number of attitudes and behaviors when making investment decisions. In these decisions, non-professionals make decisions according to current financial attitudes. It is expected that teachers who make financial investment decisions, like other people, make decisions with certain prejudices, attitudes and tendencies. It may also be the case that teachers transfer these prejudices, attitudes and tendencies that they have to the people around them or to the students during or after the lesson. In this case, the teacher can influence the decisions that they will make about the people around them or the students. Because of the role of the teachers in the society, the ability to get an idea about a subject, use their experience and influence people or students around them due to the fact that they are considered experts is high. Therefore, in this study, it was aimed to determine the attitudes and literacy level of teachers when making financial investment decisions and revealed the differences of their financial attitudes according to demographic characteristics and financial investment preferences. The universe of this study is composed of teachers working in private and state schools throughout Turkey. In this context, while creating a sample, a random sample was applied throughout Turkey due to the Covid-19 outbreak and due to time constraints. In addition, in cases where face-to-face cannot be done due to the epidemic, data collection has been attempted online. This study was limited to 517 teachers participating in the study. It is based on the assumption that the teachers participating in the study answered the survey statements with sincerity.

2.3. Method

This study aimed to examine the level of financial literacy of teachers, was patterned on the relational model. The relational model is the model deciphering the relationship between one or more variables [34]. In order to determine the demographic characteristics of the teachers participating in the study, the factors affecting their financial investment decisions and the financial investment instruments they prefer, a section containing demographic statements and financial preferences was created and this section was used. In the study, the "Financial Attitude Scale in the Field of Individual Finance for Teachers" developed by Onur and Genç [35] was used to determine the financial attitudes of teachers (financial literacy). The data obtained as a result of the research were analyzed using the SPSS 22 software. Skewness test and Kurtosis test were performed to determine whether the data were in accordance with the normal distribution. In addition, Cronbach's Alpha coefficient was calculated to determine the reliability of the data. After it was seen that the data were distributed normally, descriptive statistics were analyzed by Chi-Square test, t-test, ANOVA and Pearson correlation analysis. Descriptive statistics were used to calculate the percentage, frequency and arithmetic mean of the data collected through the measurement tool.

3. Results

Reliability and normality test results have been shown in table 1. According to table 1, the Cronbach's Alpha (α) reliability coefficient of the scale used in the study was calculated as 0.82. It is considered sufficient for reliability that the reliability coefficient calculated for social sciences and psychological tests is 0.70 and higher [36] (p. 183). Accordingly, it can be said that the data used in the study are reliable. In the study, it was determined whether the groups showed normal distribution or not. Skewness and Kurtosis values were calculated for the normality test of the data. According to Table 1, it was observed that the Skewness value of the research data was -0.010 and the Kurtosis value was 0.084. Skewness and Kurtosis values between -1.5 and +1.5 that the data show a normal distribution [37]. Accordingly, it is seen that the research data show a normal distribution. Since the data show a normal distribution, parametric analyses were used.

Table 1. Reliability analysis and normality test results of the research data

Dimension	Skewness	Kurtosis	Cronbach's Alpha (α)
Financial attitude	-0.010	0.084	0.82

Source: Created by authors

When Table 2 is examined, it is seen that a total of 517 teachers, including the number of female teachers 245 and the number of male teachers 272, participated in the study. The proportion of women participating in the study was 47.4%, and the proportion of men was 52.6%.

Table 2. The gender of the teachers

Variable	Groups	Teachers Number	Percent (%)
Gender	woman	245	47.4
	man	272	52.6

Source: Created by authors

Table 3 shows the data on the working time of the teachers participating in the study in the profession. According to this information, 61 people (11.8%) with a working period of 1-5 years in the profession, 141 people (27.3%) with 6-10 years, 119 people (23.0%) with 11-15 years and 196 people (37.9%) who were 16 years of age or older participated in the study.

Table 3. The working time of teachers

Variable	Groups	Teachers Number	Percent (%)
Working time in the profession	1-5 years	61	11.8
	6-10 years	141	27.3
	11-15 years	119	23.0
	16 years and over	196	37.9

Source: Created by authors

Table 4 contains data on the educational institution where the teachers participating in the study work. According to these data, 127 people (24.6%) study at the primary school level, 110 people (21.3%) study at the secondary school level, and 280 people (54.2%) study at the high school level.

Table 4. The Educational Institution

Variable	Groups	Teachers Number	Percent (%)
Educational institution	Primary school	127	24.6
	Secondary school	110	21.3
	High school	280	54.2

Source: Created by authors

According to the data in Table 5, 120 (23.2%) of the teachers participating in the study answered yes to the question of have you taken an education or course in financial subjects, while 397 (76.8%) answered no.

Table 5. The educational status of teachers on financial issues

Variable	Groups	Teachers Number	Percent (%)
Have you been trained in financial matters?	Yes	120	23.2
	No	397	76.8

Source: Created by authors

In table 6 shows if the teachers participating in the study allocate a part of their income to savings. The data related to their answers to the question are included. According to the data of 411 people (79.5%) do you allocate a part of your income to savings? while 106 people (20.5%) answered yes to the question, 106 people (20.5%) answered no.

Table 6. The allocation of a part of the Income of Teachers

Variable	Groups	Teachers Number	Percent (%)
Do you allocate part of your income to savings?	Yes	411	79.5
	No	106	20.5

Source: Created by authors

Figure 7 reflects whether the teachers, participating in the study, make financial investments with their savings. The data related to their answers to the question are included. According to the data, 357 people (69.1%) invest with their savings, while others don't.

Table 7. The status of teachers to make financial investments with their savings

Variable	Groups	Teachers Number	Percent (%)
Do you allocate part of your income to savings?	Yes	357	69.1
	No	160	30.9

Source: Created by authors

Table 8. The financial instruments invested by the teachers

Financial Instruments	Total (n)	Percent (%)
Gold	311	29.0
Individual retirement	114	10.6
Stock exchange	79	7.4
Currency exchange	180	16.8
Stock	88	8.2
Cryptocurrency	42	3.9
Bond	2	0.2
Cash	137	12.8
Term bank deposits	93	8.7
Investment Funds	26	2.4
Total	1072	100

Source: Created by authors

Table 8 contains data on the financial instruments invested by the teachers participating in the study. Since preference can be given to more than one financial investment instrument, the total investment preference is greater than the number of participating in the study. Accordingly, the most preferred financial investment instrument was gold with 311 (29.0%). Then, respectively, 180 (16.8%) in currency exchange, 137 (%12.8) in cash as Turkish Lira, 114 (%10.6) individual retirement, 93 (%8.7) term bank deposits, 88 (%8.2) stock, 42 (3.9%) cryptocurrencies, 26 (2.4%) of investment funds, 2 (0.2%) the bond has been invested by the teachers.

Table 9 shows the data on the financial attitude of the Teachers. According to table 9, the most preferred item by teachers is "Money should be put aside for unexpected situations" ($\bar{x}=4.52$, $S=0.66$). The item "I keep invoice, voucher guarantee documents of purchased products" have scored by participants on the lowest level ($\bar{x}=3.69$, $S=1.05$). When looking at the overall average in the data on financial attitude, it can be said that the financial attitudes of teachers are at a high level ($\bar{x}=4.10$, $S=0.84$).

Table 9. The financial instruments invested by the teachers

Dimensions	Items	$\bar{x}$	S
Financial attitude	I give priority to my mandatory needs in my expenses.	4.36	0.68
	Buying in installments increases the amount of expenses.	4.00	0.95
	The application of installments to a credit card increases expenses.	4.08	0.97
	Promotions and discounts increase the use of credit cards for purchases.	4.20	0.77
	The way to increase income is to use money wisely.	4.24	0.79
	I keep invoices, vouchers, warranty documents of the purchased products.	3.69	1.05
	Using a credit card for purchases makes it easy.	3.83	0.95
	The maximum limit of the credit card should not be reached.	4.18	0.95
	The entire credit card debt must be paid.	4.39	0.77
	It can be borrowed for large amounts of expenses (for example, buying a house, car).	4.08	0.85
	It's a bad situation to get into a new debt when I have a debt.	4.15	0.92
	Money needs to be put aside for unexpected situations.	4.52	0.66
	Savings should be made regularly.	4.41	0.66
	Savings should be assessed on the most risk-free investments.	3.88	0.87
	I get the opinion of family members about where the investments will be made.	3.89	0.89
	Real estate (house, dec, shop, etc.) the investment made is safe.	4.05	0.76
	Insurance provides guarantees against material and non-pecuniary damage.	4.17	0.77
	Having insurance reduces the damages that may occur to life and property.	3.89	0.96
	Getting into a car without insurance carries risks.	4.34	0.71
	I think my health expenses will increase in retirement.	4.07	0.82
	A will is important for the sharing of assets.	3.99	0.85
	Everyone should have a will.	3.83	0.94
	The will must be kept up to date.	4.02	0.81
	I'd like to know about things I don't know about money.	4.21	0.70
Overall Average		4.10	0.84

Source: Created by authors

When Table 10 is examined, it is seen that financial attitudes of the teachers differ significantly according to gender [$t(515)=2.39$, $p<.05$]. According to this result, it is seen that women's financial attitudes ($\bar{x}=4.15$) are higher than men's ($\bar{x}=4.06$).

Table 10. The financial attitudes according to the gender

Dimensions	Gender	N	$\bar{x}$	S	t	sd	p*
Financial attitude	Woman	245	4.15	0.39	2.39	515	0.02
	Man	272	4.06	0.41			

Source: Created by authors, *Independent Sample T Test

According to table 11, the financial attitudes of teachers do not differ statistically significantly according to their working time in the profession [$F(3-513)=0.73$, $p>0.05$].

Table 11. The financial attitudes according to the gender

Dimensions	Working Time in the Profession	N	$\bar{x}$	S	df	F	p*
Financial attitude	1. 1-5 years	61	4.06	0.44	3-513	0.73	.530
	2. 6-10 years	141	4.14	0.37			
	3. 11-15 years	119	4.08	0.46			
	4. years+	196	4.11	0.37			

Source: Created by authors, *One Way Anova

According to Figure 12, the financial attitudes of teachers differ statistically significantly according to the educational institution studied [$F(2-514)=4.57$; $p<0.05$]. The difference is due to the financial attitudes of the teachers working at the high school level and the financial attitudes of the teachers working at the elementary and middle school levels. It is seen that the financial attitudes of teachers working at the high school level ($x = 4.05$) are lower than the financial attitudes of teachers working at the elementary school ($x = 4.16$) and middle school ($x = 4.16$) levels.

Table 12. The Financial Attitude According to the Studied Educational Institution

Dimensions	Educational Institution	N	$\bar{x}$	S	df	F	p*
Financial attitude	1. Primary school	127	4.16	0.36	2-514	4.57	.01
	2. Secondary school	110	4.16	0.39			
	3. High school	280	4.05	0.41			

Source: Created by authors, *One Way Anova

When the table 13 examined, the financial attitudes of teachers do not differ significantly according to the status of studying or taking courses in financial subjects [$t(515)=-0.09$, $p>0.05$].

Table 13. The financial attitude according to the educational institution

Dimensions	Have you received financial education?	N	$\bar{x}$	S	t	sd	p*
Financial Attitude	Yes	120	4.10	0.38	-0.09	515	0.93
	No	397	4.10	0.41			

Source: Created by authors, * Independent Sample T Test

When table 14 is examined, the financial attitudes of teachers do not differ significantly according to the situation of allocating part of the income to savings [$t(515)=0.87$, $p>0.05$].

Table 14. The difference between the financial attitude according to the situation of decoupling part of the income into savings

Dimensions	Do you allocate a part of your income to saving?	N	$\bar{x}$	S	t	sd	p*
Financial Attitude	Yes	411	4.11	0.39	0.87	515	0.39
	No	106	4.07	0.43			

Source: Created by authors, * Independent Sample T Test

According to table 15, teachers' financial attitudes towards making financial investments with savings do not differ significantly [$t(515)=0.38$, $p>.05$].

Table 15. Savings and financial attitude according to the situation of making financial investments

Dimensions	Do you allocate a part of your income to saving?	N	$\bar{x}$	S	t	sd	p*
Financial Attitude	Yes	411	4.11	0.39	0.87	515	0.39
	No	106	4.07	0.43			

Source: Created by authors, *One Way Anova

4. Discussion

Nowadays, people make decisions by acting in a number of attitudes and behaviors when making financial decisions (investment decisions). In these decisions, non-professionals make decisions according to current financial attitudes. It is expected that teachers who make financial investment decisions, like other people, make decisions with certain prejudices, attitudes and tendencies. It may also be the case that teachers transfer these prejudices, attitudes and tendencies that they have to the people around them or to the students during or after the lesson. In this case, the teacher can influence the decisions that they will make about the people around them or the students. Because of the role of the teacher in the society, the ability to get an idea about a subject, use their experience and influence the people or students around them due to the fact that they are considered experts is high. Therefore, in this study teachers' attitudes when they have financial investment decision making (literacy level) revealed differences according to demographic characteristics and financial attitudes and financial investment preferences were designated the sample of the study teachers who have served in the Ministry of national education in Turkey 517 includes private and public institutions.

The Cronbach's Alpha (α) reliability coefficient of the financial attitude scale used in the study was calculated as 0.82, and it was observed that the Skewness value was -0.010 and the Kurtosis value was 0.084. As a result of this, after it was decided that the data were distributed normally and were reliable, parametric analyses were applied.

According to the study results, while the vast majority of teachers do not receive financial education or courses, on the contrary, the vast majority save money with their income and make financial investments with their savings. Capuano and Ramsay [17] have reached the same conclusions in their study. According to the authors, insufficient financial literacy, insufficient savings, personal, social and psychological factors cause investors to make non-optimal investment decisions.

Of the financial instruments invested by the teachers participating in the study, the most preferred financial investment instrument was gold with 311 choices (29.0%). According to this result, a large majority of teachers preferred investment instruments such as gold, foreign exchange, Turkish lira and private pension, which have a low risk. Similar

results are revealed in the studies of Bozkuş and Üçdoğruk [29], Hamarat and Özen [30], Karataş and Gavcar [31], Laurine, Le Roux, Canicio [32], Saraç and Kahyaoğlu [21] and Usul, Bekçi and Eroğlu [33]. In the aforementioned studies, it has been observed that low-risk investment instruments such as gold and foreign exchange are more preferred by investors. In addition, people with low income and education levels preferred safer and risk-free investment vehicles, while people with high income levels preferred riskier investment vehicles.

The differences in financial attitudes according to gender were examined and understood financial attitudes according to gender differed significantly. It was observed that women's financial attitudes ($x=4.15$) were higher than men's ($x=4.06$). In their study, Öncü and Özevin [20] found that women prefer less risky investments than men and women are more affected by psychological biases. According to these results, it can be said that men prefer more risky investment vehicles.

There was no statistically significant difference in the financial attitudes of teachers according to their working time in the profession. It is believed that the increase in working time in the profession will also represent a high level of market experience, depending on the person's age. In this respect, the study of Kudryavtsev, et al. [16] contradicts the research result.

According to the authors, investors with higher market experience exhibit more acceptable behavioral biases and the degree of correlation between behavioral biases is high for each investor category. The financial attitudes of the teachers differed statistically significantly according to the educational institution where they worked. There are no studies in this field in the literature. It is believed that the lower financial position of teachers working at the high school level may be due to reasons such as low-class hours compared to teachers working at other educational institutions.

The financial attitudes of the teachers participating in the study and their financial education or course taking status did not differ significantly according to the situation of allocating part of the income to savings and making financial investments with savings. It is believed that this is due to the fact that a large part of the teachers participating in the study did not receive financial education.

In general, it is thought that getting a financial education or course will improve financial literacy, enable rational decisions in financial decisions, and may prefer high-risk, high-risk investment vehicles over low-risk, low-profit investment vehicles. So, it is understood that it is crucial that the teachers should be educated on the financial topics.

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References

1. Sefil, S., and Çilingiroğlu, H. K. (2011). Fundamentals of Behavioral Finance: Cognitive and Emotional Tendencies of Decision-Making. *Istanbul University Journal of Social Sciences*, 10(19), 247-268.
2. Bernoulli D. (1954), Exposition of a New Theory on The Measurement of Risk. *Econometrica*, 22(1), 23-36.
3. Neumann, J. V. and Morgenstern, O. (1944). *Theory of Games and Economic Behavior*, New Jersey: Princeton University Press.
4. Savage, L.J. (1954). The Foundations of Statistics. *Naval Research Logistics Quarterly*, 1(3), 236-294.
5. Fama, E. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25(2), 383-417.
6. Jacobs, R. A. and Kruschke, J. K. (2011). Bayesian Learning Theory Applied. *WIREs Cognitive Science*, 2(1), 8-21.
7. Şenkardeşler, R. A. (2016). Evaluating the Problem of Uncertainty and Decision-Making at Risk from the Perspective of Traditional and Behavioral Finance. *Journal of Business Studies*, 8(4), 360-379.
8. Çelik, Ç. (2013). A Research Aimed at Determining the Behavior of Investors Trading on the ISE. Master's Thesis, Dokuz Eylül University, Institute of Social Sciences, İzmir. (Thesis No. 337480).
9. Kahneman, D. and Tversky, A. (1973). On the Psychology of Prediction. *Psychological Review*, 80(4), 237-251.

10. Remund, D. L. (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *The Journal of Consumer Affairs*, 44(2), 276-295.
11. Huston, S. J. (2010). Measuring Financial Literacy. *The Journal of Consumer Affairs*, 44(2), 296-316.
12. Emmons, W. R. (2005). Consumer-Finance Myths and Other Obstacles to Financial Literacy. *Saint Louis University Public Law Review*, 24(2), 335-362.
13. Vitt, L. A., Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J. K. and Ward, J. (2000). Personal Finance and The Rush to Competence: Financial Literacy Education in The U.S. Institute for Socio-Financial Studies (ISFS).
14. McCormick, M. H. (2009). The Effectiveness of Youth Financial Education: A Review of The Literature. *Journal of Financial Counseling and Planning*, 20(1), 70-83.
15. Fettahoglu, S. (2015). A Study on the Financial Education and Financial Literacy Levels of Households in Kocaeli. *Journal of Accounting and Finance*, 67, 101-116.
16. Kudryavtsev, A., Cohen, G. and Hon-Snir, S. (2013). 'Rational'or'Intuitive': Are Behavioral Biases Correlated Across Stock Market Investors?. *Contemporary Economics*, 7(2), 31-53.
17. Capuano, A. and Ramsay, I. (2011). What Causes Suboptimal Financial Behaviour? An Exploration of Financial Literacy, Social Influences and Behavioural Economics, University of Melbourne Legal Studies Research Paper No. 540.
18. Kalra Sahi, S. and Pratap Arora, A. (2012). Individual Investor Biases: A Segmentation Analysis. *Qualitative Research in Financial Markets*, 4(1), 6-25.
19. Sezer, D. (2013). The effectiveness of investor behavior and psychological illusions. PhD Thesis. Aydın: Adnan Menderes University Institute of Social Sciences. (Thesis No. 332659).
20. Öncü, M. A. and Özevin, O. (2017). Evaluation of Women's Investment Habits in Terms of Behavioral Finance. *Journal of Electronic Social Sciences*, 16(61), 583-601.
21. Saraç, M. and Kahyaoğlu, M. B. (2011). Analysis of Socio-Economic and Demographic Factors Affecting the Risk-Taking Tendency of Individual Investors. *BRSA Banking and Financial Markets*, 5(2), 135-157.
22. Altınırnak, S. and Eyüboğlu, A. (2016). Evaluation of Economic Crises within the Framework of the Concept of Neuroeconomics. *Journal of Accounting and Finance*, 72, 67-81.
23. Küçük, A. (2014). Consideration of the Factors That Lead Individual Investors to Make a Financial Investment Decision in Terms of Behavioral Finance: The Case of Osmaniye. *Journal of Academic Research and Studies*, 6(11), 104-122.
24. Gümüş, F. B., Koç, M. and Agalarova, M. (2013). A Study on the Identification of Demographic and Psychological Factors that Affect the Investment Decisions of Individual Investors: Turkey and Azerbaijan Practice. *Journal of the Faculty of Economics and Administrative Sciences of the Caucasian University*, 4(6), 71-93.
25. Karabulut, A. N. (2013). Measuring the Tendency of Consumers to Shop Online in the Face of a Perceived Risk Variable: Expectation Theory versus Expected Benefit Theory. *Journal of Yaşar University*, 8(32), 5515-5536.
26. Bayazıt Hayta, A. (2014). Psychological Biases that Affect the Perception of Financial Risk of Individual Investors. *Turkish Journal of Social Research*, 18(3), 329-352.
27. Ateş, A. (2007). A Research on the Evaluation of Financial Investments in Terms of Behavioral Finance. Master's Thesis. Konya: Selçuk University Institute of Social Sciences. (Thesis No. 211448).
28. Jahanzeb, A. and Muneer, S. (2012). Implication of Behavioral Finance in Investment Decision-Making Process. *Information Management and Business Review*, 4(10), 532-536.
29. Bozkuş S. and Üçdoğruk S. (2007). Household Savings Preferences –An Example of Turkey, 8. Turkish Econometrics and Statistics Congress, May 24-25, Inonu University, Malatya.
30. Hamarat, B. and Özen, E. (2015). The Determination of the Variables Influencing the Saving Choices in Turkey by Using Canonical Correlation Analysis. *Journal of Life Economics*, 2(1), 47-74.
31. Karataş, M. and Gavcar, E. (2001). Investigation of Savings Trends of Some Professional Groups an Example of the Province of Mugla. *Journal of the Institute of Social Sciences of September University*, 3(2), 38-46.
32. Laurine, C., Le Roux, P. and Canicio, D. (2013). Microeconomic Analysis of the Determinants of Savings Behaviour in Zimbabwe: 2009-2012. *International Journal of Business and Management*, 8(10), 159-168.
33. Usul, H., Bekçi, İ. and Eroğlu, A. H. (2002). Socio-economic Factors Affecting the Stock Acquisition of Individual Investors. *Erciyes University Journal of Economic and Administrative Sciences*, 19, 135-150.
34. Karasar, N. (2016). Scientific Research Method: Concepts, Principles, Techniques. Ankara: Nobel Academy Publishing.
35. Onur, N. and Nazik, M. H. (2014). Development of the Financial Attitude Scale in the Field of Individual Finance for Teachers: Validity and Reliability Study. *Vocational Education*, 9(4), 90-99.
36. Büyüköztürk, Ş. (2017). Handbook of Data Analysis for Social Sciences. Ankara: Pegem Academy.
37. Tabachnick, B. G. and Fidell, L. S. (2013). Using Multivariate Statistics (6th ed.). Boston: MA-Pearson.