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RESEARCH ARTICLE

The Relationship between Behavioral Tendencies and Stock Market Participation: A Study for Accounting and Finance Academics*

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Abstract
The purpose of this study is to identify the behavioral tendencies of accounting and finance academics in participating in the stock market and to examine the impact of these behavioral tendencies on their participation in the stock market. Behavioral finance recognizes that investors do not act rationally. Investors are influenced by behavioral trends and socioeconomic factors in addition to risk and return factors. Although there are many behavioral tendencies, the most basic behavioral tendencies recognized in the literature are risk tolerance, self-confidence, herd behavior, and anchoring tendencies. Along with the above factors, the socioeconomic factors of the participants and their participation in the stock market were also examined. The surveys, which were conducted among a total of 403 academics in the field of accounting and finance, were analyzed using logistic regression and chi-square test. As a result of the analyzes conducted in this study, it was found that there is a relationship between behavioral tendencies and 8 socioeconomic factors and participation in the stock market. Moreover, it was found that demographic variables such as age, marital status, amount of savings and years of academic experience have a significant relationship with participation in the stock market.

Keywords

Behavioral Tendencies, Stock Market Participation, Principal Component Analysis, Chi-Square Test, Logistic Regression Analysis

Introduction

Traditional financial theories assume that investors act rationally in their investment decisions, that they invest while taking into account the risk/reward ratio, and that they do not consider emotional attitudes. Behavioral finance, however, assumes that investors can be influenced in their investment decisions by the environment in which they find themselves, as well as by their own feelings and thoughts, in addition to the risk-return combination. The

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awarding of the Nobel Prize in Economics to Gary Becker in 1992, to Daniel Kahneman and Vernon Lomax Smith in 2002, and to Richard Thaler in 2017 shows that behavioral finance has reached an acceptable level worldwide.

Knowledge of investor behavior in financial markets is particularly important in countries where the number of investors is insufficient. It is well known that the development of capital markets, which are an important pillar of financial markets, is directly proportional to the number of stock market participants. This fact is also reflected in the development plans of countries (Presidency of the Republic of Türkiye - Strategy and Budget Office, 2019).

Although it is well known in the literature that there are many different factors that influence the decisions of individual investors, it is accepted that the level of financial knowledge is an important determinant (Lodhi, 2014 and Gutsche et al., 2020). With this in mind, academics in the fields of accounting and finance whose financial knowledge is considered to be the highest were selected for this study.

There are several reasons why the study sample was from Türkiye. The fact that the number of individual stock market participants is small compared to the country's population, its location in a developing country, and the interest of foreign investors are the most important. The high development opportunities of the Turkish Stock Exchange - Borsa İstanbul (BIST) compared to the stock exchanges of developed countries are another source of motivation. For example, looking at the ratio of market capitalization to GDP, this ratio is 126% for the New York Stock Exchange, 92% for the Nasdaq Stock Exchange, 136% for TMX Group, 131% for Euronext (Europe) Stock Exchange, and 33% for Türkiye. This figure puts Türkiye in 32nd place in the country rankings. Additionally, the afore-mentioned development potential of BIST, Türkiye's geographical location, the dynamics of economic and foreign trade development among developing countries, large domestic and regional markets, liberal investment environment, incentives for foreign investors, and the presence of institutions such as Capital Markets Board of Türkiye (CMB) and Borsa İstanbul (BIST), which protect investors, are important. (The Investment Office of the Presidency of the Republic of Türkiye, 2021).

This study investigates whether risk tolerance, self-confidence, herding behavior, and anchoring tendency have an impact on individuals' investments in the stock market. The study also examines whether there is a relationship between individuals' socioeconomic characteristics and their participation in the stock market. To this end, a questionnaire was sent to accounting and finance academics working at public or foundation universities in different regions of the country.

The study examined the effect of behavioral tendencies on stock market participation using logistic regression analysis among 403 academics who participated in the survey. The relationship between socioeconomic variables and stock market participation was analyzed

using the chi-square test. It is expected that the results of the analysis will serve as a stimulus for regulators in Türkiye and similar developing countries. Knowing the personal and demographic characteristics of investors that influence their behavior is important for developing capital markets and increasing the number of investors.

After this introductory section , the study continues with the explanation of the scale of behavioral tendencies.

Behavioral Tendencies

Behavioral finance theory states that irrational decisions can be effective in the investment decisions of investors. This is because people cannot be expected to always act rationally in their decisions since there are both psychological and economic characteristics (Akyıldız, 2008, p.39). For this reason, this study investigated how investors' behavioral tendencies affect their participation in the stock market. Although there are many behavioral tendency scales in the literature, the behavioral tendencies that were used as independent variables in this study and the reasons for these tendencies are listed below.

Risk tolerance is the amount of risk that the investor can directly accept within a certain or indefinite period of time, without considering whether he needs to take any precautions for the investment he prefers. In other words, it is a situation that shows how much of the potential dangers he can tolerate and how willing he is to take the necessary risk to achieve the positive part of the opportunities (Grable et al., 2008, p.7). Risk tolerance is a situation that may be preferred especially by investors who do not want to take high risk, because investors prefer to take the risks they can foresee rather than the risks they cannot foresee when making investment decisions (Boyle, Uppal & Wang, 2003; Çetiner, Gökçek & Gölbaşı, 2019). No investment has zero risk, and the investor must bear a small amount of risk compared to the investment instrument. For this reason, this scale was used to measure investors' attitude toward risk.

The fact that people believe that their predictions about the future are much higher than the actual ones and act in this sense shows that people are overconfident. In this context, individuals cannot prevent their tendency to make decisions and act without knowing that they are making irrational decisions. Even when individuals know that new information is extremely safe in some cases, they continue to make decisions by putting new information in the background because they are overconfident (Kavurmacı & Altıntaş, 2017, p. 97). In particular, when this decision-making process is continuous, investors prevent difficulties that may arise from their important and strategic steps from even being perceived, and they may make mistakes in their decisions because of their self-confidence (Lovallo & Sibony, 2006, p. 21). In this study, the self-confidence scale was chosen to investigate the selection of accounting

and finance academics as the sample and the fact that these individuals have stock market knowledge and have an impact on academics' investment behavior in their investments.

In social psychology, herd behavior occurs when investors put their own decisions and orientations in the background and follow the orientations and desires of the group to which they belong. The definition of herd behavior in the stock markets is the situation of individuals who are influenced by the market reactions and movements and make buying and selling transactions in the stock market by putting their own thoughts and feelings into the background (Ergün & Doğukanlı, 2015, p. 690). As another definition, Baddaley stated in his 2010 study that individuals follow in the footsteps of communities in situations of uncertainty and imitate them (Baddaley, 2010, p. 283). The tendency to herd behavior is divided into rational herd behavior and irrational herd behavior. In rational herd behavior, individuals consider the events and situations that have occurred in the past and act accordingly, whereas in non-rational herd behavior, individuals make the same decisions and behaviors by considering the person in front of them (Scharfstein & Stein, 1990, p. 465). While there are studies in which herd behavior is effective in investing in stocks in the countries' stock markets, this scale was included in the study to investigate whether this tendency also applies to the participants who make up the study's sample and who are knowledgeable in this area.

Humans have the need to create a point of reference when solving a problem or facing a complex situation. Based on this reference point, various estimates are made. In the last case, the initial value is established by anchoring it with the additional information. This reference point, usually determined by previous experience, is a small formulation of the problem. All these situations define the tendency of anchoring (Şenkesen, 2009, p. 237). The purpose of this scale is to test whether accounting and finance academics always prefer the same investment instruments in their investments or whether portfolio diversification is undertaken. Since the academics in the sample are aware of various investment instruments, the anchoring tendency was used to examine whether these investment instruments are preferred or not.

Literature Review

In the literature, there are studies that analyze the relationship between the demographic characteristics of individual investors such as age, gender, marital status and their investments, such as the studies by Saraç and Kahyaoğlu (2011), Öztopçu (2016), Kesbiç and Yiğit (2016), Tekin and Cengiz (2020). Studies that analyze socioeconomic variables such as religious structures, income, investment amounts, region of residence of individuals and their participation in the stock market are the works of Ayvalı (2014), Rajamohan (2010), Lodhi (2014), Gutsche et al. (2020). Studies that examine behavioral tendencies such as risk tolerance, self-confidence, herd behavior, anchoring, and participation in the stock market are Chandra and Kumar (2011), Menike et al. (2015), Dizdarlar and Şener (2016), Dervishaj

and Xhaferi (2020), Adielyani and Mawardi (2020), Cherotich and Shiundu (2020), Akal and Kılıç (2020). Some studies from the literature are summarized below.

Duqi and Al-Tamimi (2019), Ayvalı (2014), Yeşildağ and Özen (2015), Öztopçu (2016), Dizdarlar and Şener (2016), Şamandar and Çömlekçi (2019) studied the behavior of individual investors. In this context, individual investors were preferred as samples in the studies, and a questionnaire was administered to the participants. In general, the studies in which factor analysis and chi-square test were applied concluded that individuals cannot act rationally, that they are influenced by their social environment, and that their demographic characteristics are crucial for their investment decisions.

Chandra and Kumar (2011), Shafiee Sardasht, Moradi and Rahmani (2014), Menike, Dunisinghe, and Ranasinghe (2015), Aydın and Ağan (2016), Lai (2019), Dervishaj and Xhaferi (2020), Özçelik (2018), Adielyani and Mawardi (2020), Cherotich and Shiundu (2020) distributed questionnaires to individual investors as well as to the employees of brokers and financial institutions in order to measure the behavioral factors that affect individuals' participation in the stock market, they. They concluded that herd behavior, risk tolerance, confidence in the stock market, and anchoring tendencies affect individuals' participation in the stock market.

Al-Tamimi and Kalli (2009), Rajamohan (2010), Hossain and Nasrin (2012), Yüksel (2009), Kesbic and Yiğit (2016), Cihangir, Sak, and Bilgin (2016), and Tekin and Cengiz (2020) conducted studies to identify the behavioral and socioeconomic factors that influence investors' participation in the stock market and analyzed the questionnaires they sent to individual investors and households using regression analysis and T-tests in general. They concluded that having a high level of financial education, being close to finance, having a high income, and being married all influence trading in the stock market.

Saraç and Kahyaoğlu (2011), Lodhi (2014), Farooq and Sajid (2015), Gao, Meng, and Zhao (2019), Gutsche, Wetzel, and Ziegler (2020), Akal and Kılıç (2020) conducted studies on environmental and behavioral factors and stock market participation. A survey of individual investors was conducted to test the relationship between the correlation and the least squares method, and the authors concluded that individuals who are risk takers, have a high degree of conservatism, have good social relationships, and have a high level of education have a higher propensity to participate in the stock market.

Model and Hypotheses of the Study

The model of the study is shown in Figure-1 below.

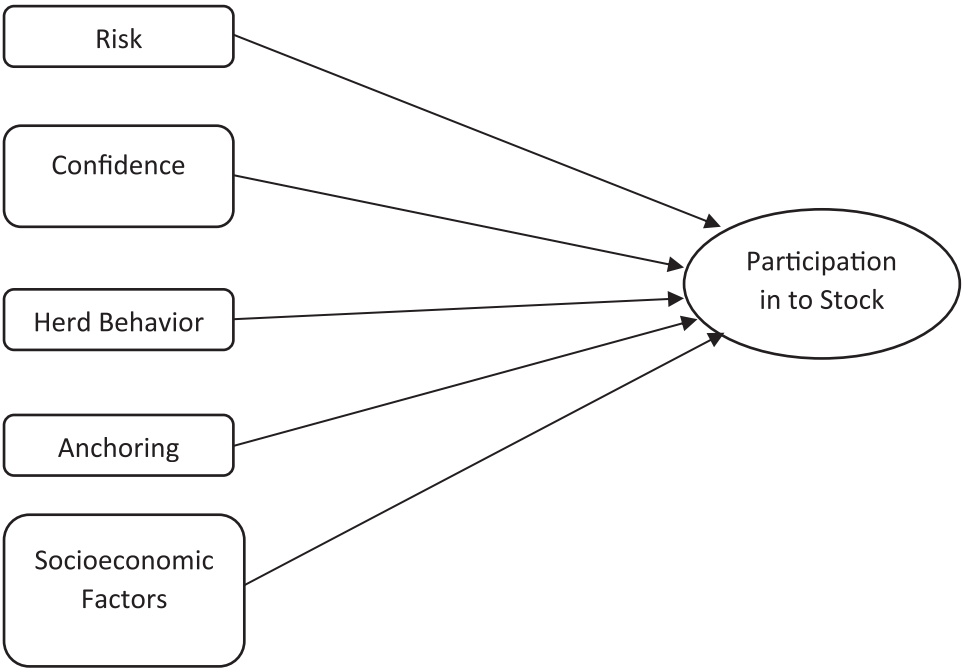


Figure 1. Model of the Research

In the study, there are two types of variables: the dependent variable and the independent variable. The dependent variable is the participants' participation status in the stock market and the independent variables are the participants' risk tolerance, their self-confidence, their herding behavior, the values composed of the averages of the anchoring tendencies, and the socioeconomic variables of the individuals.

The hypotheses of the study, based on the literature, are listed below.

H_1: Risk tolerance has a statistically significant effect on stock market participation.

H_2: Self-confidence has a statistically significant influence on participation in the stock market.

H_3: Herding behavior has a statistically significant influence on participation in the stock market.

H_4: Anchoring tendency has a statistically significant influence on participation in the stock market.

H_5: There is a statistically significant relationship between gender and participation in the stock market.

H_6: There is a statistically significant relationship between age and participation in the stock market.

H_7: There is a statistically significant relationship between marital status and participation in the stock market.

H_8: There is a statistically significant relationship between the amount of savings and participation in the stock market.

H_9: There is a statistically significant relationship between years of academic experience and participation in the stock market.

Research Population and Sample

The population of this study consists of accounting and finance academics working at YOKSIS in February 2021. YOKSIS is a publicly accessible academic information infrastructure system that stores information about students and transmits the data of graduates and active students of all universities. The accessibility of the sample is important for the applicability of the study. For the survey, academics were contacted through their email addresses registered in YOKSIS, and those who did not have registered email addresses were reached through their universities' official websites. The online surveys were conducted among 2372 accounting academics and 2160 finance academics, and 403 responses were received. In this context, the population of the survey is 4532 people. The sample is the entire population. The reason why the survey was conducted among academics is that their income level is high, since investments depend on savings and savings depend on income. The reason why the survey was conducted among academics in accounting and finance is that they have mastered the theoretical part of the subject through academic studies and lectures/seminars on the stock market. As for the level of financial literacy, the group most likely to participate in the stock market is the sample of the survey. The survey questions were sent online to the academic or personal email addresses of the academics in the study population.

The scale for the study was created by combining 4 factors under the headings of risk tolerance, self-confidence, herd behavior, and anchoring that had previously been tested for reliability and validity in measuring behavioral tendencies related to individuals' decisions not to invest. Both the 3-item and 5-item risk tolerance questions in the scale are from Salem's (2019) risk tolerance scale, , the 4-item herding behavior questions are from Adielyani and Mawardi's (2020) herding behavior scale, and the 6-item anchoring questions are from Elrabeey's (2018) anchoring scale.

Methodology

The answers given by academics of the Department of Accounting and Finance to the questions asked in the questionnaire were analyzed by principal component analysis, reliability test, logistic regression analysis and finally chi-square test.

The study used principal component analysis to reduce each scale, which consisted of 18 questions to participants, to a single value. The rotation method used was the Varimax method, one of the vertical rotation methods. The Varimax method is not only the most commonly used rotation method, but also the only method that can be used to determine factor coefficients (Nakip, 2003, p. 413). Kaiser-Meyer-Olkin (KMO) and Barlett tests were applied to test the suitability of the data for factor analysis. The technique is widely used in the literature against the dependence structure between variables (Joliffe, 2002, p. 167) and the multicollinearity problem (Ersungur, Kızıltan, & Polat, 2007, p.57).

Chi-square test is a test based on whether the difference between observed frequencies (OF) and expected frequencies (EF) is statistically significant (Last, 2001, p.29).

Logistic regression is the method of analysis used when there is at least one independent variable and the dependent variable is categorical. In the study, logistic regression analysis was considered appropriate to code the status of participation in the stock market as 0 and 1, that is, the dependent variable had a categorical structure. In this way, the effect of four independent variables, which are behavioral tendencies, on participation in the stock market is analyzed.

Logistics Regression is written as below (Bircan, 2004, p. 189):

$$= \pi(x)\left[\frac{exp(\beta_{0+}\,\beta_1\,X}{1+exp(\beta_{0+}\,\beta_1\,X}\right]$$

This equation can also be expressed as:

$$\pi(x) = [1 + exp\,(-\beta_0\, - \beta_1\, X]^{-1}$$

Transforming the conditional mean is for linearization with the parameters included in the model (βo+β1).

$$L = ln\left[\frac{P_i}{1-P_i}\right] = \beta_{1\,+}\,\beta_2\,X_i + u_i$$

Logistic regression occupies an important place in the analysis of categorical data because it is more effective when other types of regression are considered. The greatest common denominator of logistic regression, which has many similar structures to multiple regression and discriminant analysis, with discriminant analysis is that its dependent variables have a categorical structure (Çokluk, 2010, p. 1360).

Findings

In this part of the study, the results related to the analysis of the survey responses are presented. The frequency values indicate the percentage of descriptive, i.e. demographic, characteristics of the academics participating in the survey. The frequency values of the survey responses are presented in Figure 1.

Table 1
Frequency and Percentage Distribution of Participant Demographics

Variables	**Groups**	**F**	**%**
Gender	Female	159	39.5
	Male	244	60.5
Age	24 and below	39	9.7
	25-34	77	19.1
	35-44	170	42.2
	45-54	71	17.6
	55 and above	46	11.4
Maritial Stuation	Single	129	32
	Married	274	68
Amount of Monthly Savings	0 TL	20	5
	500 TL and less	70	17.4
	501-2000 TL	123	30.5
	2001-5000 TL	97	24.1
	5001 TL and more	93	23
Academical Experience	0-5 years	102	25.3
	6-10 years	97	24.1
	11-20 years	109	27
	21 years and above	95	23.6
Stock Exchange Participation	Yes	181	44.9
	No	222	55.1

When we examine the frequency distributions of the demographic variables in the study, we find that the responses are generally evenly distributed. In this context, we find that the number of those who invest in the stock market and those who do not are close, that the socioeconomic status of the respondents is balanced, and that both the analysis of the study and the results of the logistic regression analysis can provide healthier results.

Test and Results Of Principal Component Analysis

In the study, the questions on risk tolerance, self-confidence, herd behavior, and anchoring tendencies were reduced to one factor for each independent variable, and a score was created for each independent variable.

A rotated component matrix was created to determine which factor the questions were strongly correlated with. As a result of the principal component analysis, the 4th and 5th questions of the self-confidence factor and the 2nd, 4th, and 5th questions of the anchoring factor were excluded from the analysis because they loaded on more than one factor and the factor loadings were low. In the last case, 4 factors were found to be consistent with the model.

The factor analyzing process results of Behavioral Tendencies are as below:

Table 2

KMO and Barlett's Tests

Kaiser-Meyer-Olkin Sample Efficiency Scale		.746
Barlett's Spherical Test	Chi-Square	1433.074
	SD	78
	P	.000*

** It refers to the relationship at the 1% significance level.*

Since Bartlett's test was significant at the 0.01 level and the KMO test was greater than 0.6, it was decided that the data were suitable for factor analysis (Kulcsár, 2010, p.153).

According to the factor analysis of the behavioral tendency scale, the first factor explained 18.92% of the total variance, the second factor explained 16.33% of the total variance, the third factor explained 14.67% of the total variance, and the fourth factor explained 13.29% of the total variance. It was found that all factors explained 63.22% of the total variance.

In this part, reliability analyzes of the factors created for the survey questions were conducted.

Table 3

Reliability Analysis

Factors	**Question (N)**	**Cronbach's Alpha**
Herd Behavior	4	.788
Self Confidence	3	.776
Risk Tolerance	3	.678
Anchoring	3	.601

As shown in Figure 3, the herd behavior factor in the scale is about 79%, the self-confidence factor is about 78%, the risk tolerance factor is about 68%, and the anchoring factor is about 60% reliability. These values are considered quite sufficient in terms of reliability in the social science field (Hair et al., 1998, p.118).

Logistics Regression Tests and Findings

After determining that the assumptions of the logistic regression analysis were met, the analysis was started. Participation in the stock market, which is the dependent variable, was

coded as "yes=1" and "no=0". The first step of the logistic regression analysis results is the comparison of the classification tables. The classification results of steps 0 and 1 are shown in Figure 4.

Table 4

The Classification Results of the 0th and 1st Phases

Observed			**Prediction Participating in the Stock**		
			Yes	**No**	**True %**
Step 0	Participating in the Stock	Yes	181	0	100.0
		No	222	0	0
		Total			**44.9**
Observed			**Prediction Participating in the Stock**		
			Yes	**No**	**True %**
Step 1	Participating in the Stock	Yes	119	62	65.7
		No	41	181	81.5
		Total			**74.3**

Step 0 in Figure 4 shows the precision of this estimate assuming that all participants answered yes in the original model without the added independent variables. Step 1 shows the rate at which the independent variables correctly predict the values of the dependent variable. While the estimate in Step 0 was 44.9%, the estimation rate of the independent variables was 74.3%. This situation is an indicator of the fit of the model because the independent variables increase the predictive power of the original model by 29.4%.

Figure 5 shows the values of the initial model of the study.

Table 5

Values of Starting Model

	β	**S.H.**	**Wald**	**SD**	**Sig.**	**Exp (β)**	**-2 Log The independent likelihood**
Stable	.204	.100	4.157	1	.041**	1.227	424.916[a]

-2 LogLikelihood Value of Step 1:554.498[a]

In Figure 5, the independent variables were not included in the analysis. Before proceeding with the logistic regression analysis, one can see the improvement that occurs when the independent variables are added to the model by looking at the -2 log likelihood (LL) value in the initial model and the -2 LL value in the final state using the following method (Field, 2013, p. 324).

$$X^2 = 2\left[Log\ Likelihood_{(NEW)} - Log\ Likelihood_{(BEGINING)}\right]$$

$$sd = K_{(NEW)} - K_{(BEGINING)}$$

As can be seen in Figure 5, the value -2 LL decreased from 554,498 to 424,916 in the first case, which is an indicator of the goodness-of-fit of the model (Arıkan, 2015, p. 7).

Goodness-of-fit tests are also used to evaluate the fit of the model. The results of the score test, the omnibus test, and finally the results of the Hosmer & Lemeshow test from the goodness-of-fit tests are shown in Figure 6 below.

Table 6
Adaptation Benefit Test Results

Test	x^2	Sd	P
Score Test	111.597	4	.000 ***
Omnibus Test	129.582	4	.000 ***
Hosmer & Lemeshow Test	10.438	8	.236

The critical values at the *** 1% levels of significance.

If the score test yields a significant result ($p < 0.01$), it means that the predictive power of the model increases when the independent variables that were not included in the model are then added (Çokluk, 2010, p. 1384). In this context, it can be interpreted that the inclusion of independent variables in the model strengthens the model.

The significant result of the omnibus test indicates that the model with the independent variables is stronger than the original model and that there is a statistically significant relationship between the dependent variable and the independent variables (Çokluk, 2010, p. 1386).

If the result of the omnibus test is less than 0.01, it means that the model with the independent variables is stronger than the model in the first case and that there is a statistically significant relationship between the dependent variable and the independent variables.

When the Hosmer & Lemeshow test, which examines logistic regression analysis as a whole, is meaningless, it is interpreted to mean that there is a good fit between the model and the data. Accordingly, the Hosmer & Lemeshow test is greater than 0.05, which means that it is considered meaningless. In general, it can be concluded that the predictive power of the model is increased by the independent variables, that there is a significant statistical relationship between the dependent variable and the independent variables, and finally that the data and the model have a good fit.

In the final stage of the logistic regression analysis, the regression coefficients and the significance levels of the coefficients are examined to make evaluations. Figure 7 shows the values of β, standard error and Wald statistics. β; When the regression coefficients of the independent variables are reported, the negative sign of the coefficient means that the probability of participating in the exchange is coded as 0, and the positive sign means that the probability of not participating in the exchange, which is coded as 1, has an effect on the probability of realization. The Wald statistic is used to test the significance of the regression coefficients of the independent variables. It is obtained by dividing the β-coefficients of the independent variables by the standard error and squaring ($(\frac{\beta}{S.H})^2$). Another value in the figure is the Exp (β)-value. The Exp (β)-value indicates the odds ratio calculated for each independent variable. In other words, it measures the change in odds ratio when the independent variable changes by

one unit. It is interpreted that in cases where the Exp (β) value is greater than 1, it increases the probability that the predicted situation will occur, and in cases where it is less than 1, it increases the probability that the predicted situation will not occur (Field, 2013, p.337).

Table 7
The Coefficient Predictions of Logistics Regression Model

Exp (β) %95 Confidence Interval								
Variables	**B**	**S.H.**	**Wald**	**SD**	**p**	**Exp(β)**	**Lower Limit**	**Upper limit**
Herd Behavior	-.944	.155	37.227	1	.000*	2.569	1.897	3.479
Self Confidence	.573	.151	14.496	1	.000*	.564	.420	.757
Risk Tolarance	.845	.144	34.596	1	.000*	.430	.324	.569
Anchoring	.584	.210	7.712	1	.000*	.558	.369	.842
Stable	3.778	.962	15.415	1	.000*	43.720		

**Indicates the level %1 of significant relation.*

According to Figure 7; since the herding behavior, self-confidence, risk tolerance, and anchoring factors, i.e., the β-values of the independent variables, were significant at the 0.01 level, they were found to have an effect on the dependent variable of whether or not to participate in the stock market. According to this result, hypotheses H1, H2, H3 and H4 are accepted.

Looking at the coefficient values of the variables, we find that a 1-unit increase in the "herd behavior" factor has a 0.94 impact on the non-participation status; a 1-unit increase in the "self-confidence" factor has a 0.57 impact on the participation status in the stock market; a 1-unit increase in the "risk tolerance" factor has a 0.84 impact on the participation status in the stock market.

Looking at the Exp (β)-values in Figure 7, a 1-unit increase in herding behavior increases the probability of not participating in the stock market by 156.9% ((2.569-1)*100) compared to the probability of participating in the stock market. A 1 unit increase in self-confidence increases the probability of participating in the stock market by 43.6% compared to the probability of not participating. A 1-unit increase in risk tolerance increases the probability of participating in the stock market by 57% compared to the probability of not participating. A 1 unit increase in anchoring tendency increases the probability of participating in the stock market by 44.2% compared to the probability of not participating.

Table 8
R2 Values of the Model

Cox&Snell R^2	.275
Nagelkerke R^2	.368

The Cox & Snell R2 and Nagelkerke R2 values indicate how much of the variance in the dependent variable in the model is explained by the independent variables. An R2 value of 1 means that the fit is perfect and the explanatory power is high. The interpretation of Hair et al. (2014) should be based on the Nagelkerke R2 value. Because the Nagelkerke R2 value is $0<R2<1$. According to Figure 8, the Cox & Snell R2 value of the model was 0.275 and the

Nagelkerke R2 value was 0.368. It is recommended to interpret the Nagelkerke value (Hair et al., 2014, p.164). Accordingly, the explanatory power of the independent variables was reported to be 36.8%.

In this section, the socioeconomic questions asked of survey participants and their participation in the stock market were analyzed using the chi-square test, and the results of the analysis are presented below.

Table 9

Chi-Square Test Findings

Variables	Yes		No		x^2	p	F Value
	n	%	n	%			
Gender							
Female	69	38.1	90	40.5	0.244	0.621	71.41
Male	112	61.9	132	59.5			
Age							
24 and below	37	20.4	2	0.9	48.689	0.000 ***	17.52
25-34	29	16	48	21.6			
35-44	59	32.6	111	50			
45-54	33	18.2	38	17.1			
55 and above	23	12.7	23	10.4			
Maritial Stuation							
Single	69	38.1	60	27	5.639	0.018**	57.94
Married	112	61.9	162	73			
Amount of Monthly Saving							
0 TL	1	0.6	19	8.6	19.938	0.001***	8.98
500 TL and less	42	23.2	28	12.6			
501-2000 TL	51	28.2	72	32.4			
2001-5000 TL	44	24.3	53	23.9			
5000 TL and more	43	23.8	50	22.5			
Experience Years							
0-5 years	56	30.9	46	20.7	10.924	0.012**	42.67
6-10 years	31	17.1	66	29.7			
11-20 years	49	27.1	60	27			
21 years and above	45	24.9	50	22.5			

The critical values at the *** 1% and ** 5% levels of significance.

To evaluate the results of the chi-square analysis, the number of cells with an expected value below 5 should not exceed 20% of the total number of cells in the crosstab. In other words, the expected value should be 5 or more in 80% of the cells. In this analysis, the number of cells with an expected value of less than 5 is zero.

Examination of the table shows that there is no statistical relationship between gender and participation in the stock market. In this case, hypothesis H5 was rejected. There is a statistical relationship between age and participation in the stock market at the 1% level of significance ($p < 0.05$). In this case, hypothesis H6 was accepted. While participation in the stock market

tends to decrease in the age group from 24 to 34, participation in the stock market increases in the age group from 35 to 44, and thereafter participation in the stock market tends to decrease in the different age groups. There is a statistical relationship at the 5% level of significance between marital status and participation in the stock market. In this case, hypothesis H7 was accepted. It can be concluded that the marital status of the participants has an impact on spending/saving, which in turn has an impact on investing. There is a statistical relationship at the 1% level of significance between monthly savings and participation in the stock market ($p < 0.05$). In this case, hypothesis H8 was accepted. There is a statistical relationship at the 5% level of significance between years of academic experience and participation in the stock market ($p < 0.05$). In this case, hypothesis H9 was accepted. It can be seen that the experience in the professional life of the survey participants has an impact on participation in the stock market. From these results, it can be concluded that the participants can earn higher income if they work longer and they can participate in the stock market with higher income. Based on these results, hypothesis H5 was rejected and all other hypotheses were accepted.

Conclusion

Behavioral finance assumes that people do not act rationally in their investment decisions and that both personality traits and behavioral tendencies play a role in decision making. Although there are many behavioral tendencies in the literature, the behavioral tendencies that most influence people are risk tolerance, self-confidence, herd behavior, and anchoring tendencies. In addition, people's socioeconomic characteristics are also known to influence their participation in the stock market. In this context, the study examined the relationship between behavioral tendencies and participation in the stock market. Saving for investment and income for saving must be at a certain level. For this study, academics were selected as the sample based on their income status. Academics from accounting and finance were chosen based on their proximity to the stock market. Accordingly, this study examined the effects of four behavioral tendencies and socioeconomic factors on stock market participation among those who participated and those who did not. The behavioral tendencies and participation in the stock market were analyzed using logistic regression analysis, and the socioeconomic factors were analyzed using the chi-square test.

The results of the study show that all four behavioral tendencies have an impact on stock market participation. Looking at the coefficient values of the variables, we find that a 1-unit increase in the "herd behavior" factor leads to a 0.94 increase in non-participation in the stock market. Again, we find that a 1-unit increase in herd behavior increases the probability of not participating in the stock market by 156.9% relative to the probability of participating. Accordingly, we would expect participants who do participate in the stock market to discard their herd behavior tendencies and benefit from technical analysis and methods in areas where they are deficient in the stock market. This will increase the participation of individuals in the stock market and contribute to the further development of the capital markets.

It turns out that a 1-unit increase in the self-confidence factor increases the status of participation in the stock market by 0.57, while a 1-unit increase in the self-confidence level increases the probability of participation in the stock market by 43.6%, compared to the probability of non-participation in the stock market. Despite the fact that individuals are experts in their field, due to the low level of participation in the stock market, it will be beneficial to increase the number of stock market participants by conducting various studies and attending training about the stock market so that people who are not part of the research universe will gain confidence. More information will increase investor confidence. This will also have an impact on participation in the stock market.

It is observed that a one-unit increase in the risk tolerance factor increases participation in the stock market by 0.84, while a one-unit increase in risk tolerance increases the probability of participating in the stock market by 57%, compared to the probability of not participating in the stock market. This suggests that individuals with high risk tolerance tend to participate more in the stock market. Therefore, to increase the number of retail investors, investors should build a portfolio and minimize their potential losses.

It can be seen that a 1-unit increase in the anchoring factor increases the status of participation in the stock market by 0.58, while a 1 unit increase in the anchoring tendency increases the probability of participation in the stock market by 44.2% compared to the probability of non-participation in the stock market. In this regard, investors will find it easier to achieve the expected return on their investment in the stock market if they do not keep their investment analysis static, but constantly review it, are open to other ideas on the subject, and apply various analysis techniques. In this way, it is expected that investors' participation in the stock market will be higher.

In examining the relationships between socioeconomic factors and participation in the stock market, it was found that there was a statistically significant relationship between individuals' age, marital status, monthly savings, and academic experience and participation in the stock market. In addition, no statistically significant relationship was found between gender and participation in the stock market. In accordance with the studies in the literature, an increase in participation in the stock market was observed as the age of the individuals increased. In addition, the relationship between the monthly savings amount and participation in the stock market showed a result consistent with the notion that investment depends on savings and savings depends on income. There was also a relationship between participants' theoretical knowledge of the stock market based on their professional status and the increase in their experience and participation in the stock market.

In this regard, according to the analyzes in the study Öztopçu (2016), Gutsche et al. (2020), in conjunction with the work of Cherotich and Shiundu (2020), Rajamohan (2010), Farrell (2011), Cihangir et al. (2016), partly similar to the studies of Adielyani and Mawardi (2020),

Shafiee Sardasht et al. (2014), Ayvali (2014), Farooq and Sajid (2015) have obtained opposite results. To improve the study, new results could be obtained by finding out people's opinions about participation in the stock market and their reasons for not participating in the stock market. These future studies could be conducted through personal interviews instead of surveys.

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