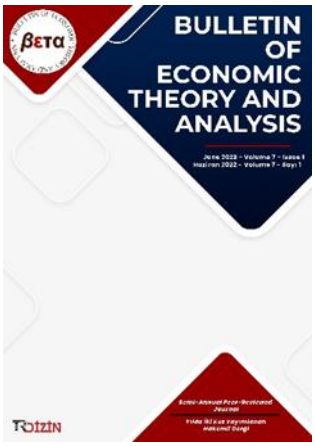

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An Examination of Individual Investors' Investment Decisions from a Behavioral Finance Perspective

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Abstract

This study examines the investment decisions of 542 individual investors in Türkiye's Southeastern Anatolia Region (Diyarbakır, Bingöl, Mardin) from a behavioral finance perspective. Data were collected through face-to-face interviews using a structured questionnaire, tailored to the region's low literacy and limited digital access. The relationships between demographic factors (gender, marital status, age, occupation, income, education) and behavioral finance tendencies were analyzed using t-tests and ANOVA. No significant relationships were found for gender, marital status, age, occupation, or income, but education level significantly influenced behavioral finance tendencies ($p=0.010$), with high school graduates showing lower cognitive biases (e.g., overconfidence, loss aversion) than primary school graduates. Investors exhibited a conservative approach, favoring traditional instruments like gold (32.3%) and real estate (24.4%), reflecting cultural influences and risk aversion. These findings highlight education's critical role in enhancing financial literacy and reducing biases in socio-economically disadvantaged regions, informing targeted financial education programs.

Keywords
Behavioral Finance, Individual Investors, Cognitive Biases, Emotional Influences, Market Anomalies

JEL Classification
G40, D03, D90, G,11, G14

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Bireysel Yatırımcıların Yatırım Kararlarının Davranışsal Finans Yönünden İncelenmesi

Öz

Bu çalışma, Türkiye'nin Güneydoğu Anadolu Bölgesi'nde (Diyarbakır, Bingöl, Mardin) yaşayan 542 bireysel yatırımcının yatırım kararlarını davranışsal finans perspektifinden incelemektedir. Veriler, bölgenin düşük okuryazarlık düzeyi ve sınırlı dijital erişimine uygun olarak yüz yüze görüşmelerle yapılandırılmış bir anket yoluyla toplanmıştır. Demografik faktörler (cinsiyet, medeni durum, yaş, meslek, gelir, eğitim) ile davranışsal finans eğilimleri arasındaki ilişkiler t-testleri ve ANOVA ile analiz edilmiştir. Cinsiyet, medeni durum, yaş, meslek ve gelir ile davranışsal finans eğilimleri arasında anlamlı bir ilişki bulunmamıştır. Ancak, eğitim düzeyi ile davranışsal finans eğilimleri arasında anlamlı bir ilişki ortaya çıkmıştır ($p=0.010$); post-hoc testler, lise mezunlarının ilkokul mezunlarına kıyasla aşırı güven ve kayıptan kaçınma gibi bilişsel önyargılara daha az eğilim gösterdiğini göstermiştir. Ayrıca, bölgedeki yatırımcıların muhafazakâr bir yaklaşım sergileyerek altın (%32,3) ve gayrimenkul (%24,4) gibi geleneksel araçları tercih ettiği, bu tercihin kültürel etkiler ve riskten kaçınma eğiliminden kaynaklandığı belirlenmiştir. Bu bulgular, sosyo-ekonomik olarak dezavantajlı bölgelerde finansal okuryazarlığın bilişsel önyargıları azaltmadaki kritik rolünü vurgular ve hedefe yönelik finansal eğitim programlarına yönelik içgörüler sunar.

Anahtar Kelimeler
Davranışsal Finans, Bireysel Yatırımcılar, Bilişsel Önyargılar, Duygusal Etkiler, Piyasa Anomalileri

JEL Kodu
G40, D03, D90, G11, G14

1. Introduction

Traditional finance theories, particularly the Efficient Market Hypothesis (EMH) (Fama, 1970), posit that financial markets operate efficiently by assuming that investors are rational actors and that market prices instantly and accurately reflect all available information. According to this approach, systematic anomalies or irrational behaviors should not be observed in markets, and arbitrage opportunities should not exist. However, starting from the 1980s, large-scale market phenomena such as bubbles (e.g., the dot-com bubble), crashes (e.g., the 2008 global financial crisis), and other anomalies (e.g., momentum effect, value effect) have led to serious questioning of these fundamental assumptions (Shiller, 2000). These observations have demonstrated that investors may systematically deviate from rationality in their decision-making processes and that these deviations can significantly influence market dynamics. Behavioral finance integrates findings from psychology (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992), sociology (Shiller, 2003), and other social sciences into the field of finance, aiming to provide a more realistic explanation of investor decision-making processes and market dynamics (Shefrin, 2002; Thaler, 1993). This discipline suggests that individuals may deviate from rationality due to cognitive biases (e.g., overconfidence, anchoring bias, representativeness bias), emotional influences (e.g., fear, greed), and social interactions (e.g., herd behavior, social proof), and that these deviations can lead to market inefficiencies. Kahneman and Tversky's (1979) "prospect theory" plays a pivotal role in

explaining how individuals perceive and evaluate risks and gains. According to prospect theory, individuals weigh losses more heavily than gains (loss aversion) and use different reference points when making choices among risky options. Furthermore, behavioral finance plays a significant role in explaining market anomalies (e.g., seasonality in stock markets, performance differences between value and growth stocks) and other intriguing phenomena in financial markets (e.g., bubble formation, market volatility).

While the current behavioral finance literature largely focuses on metropolitan areas and Western countries, this study addresses a significant gap by examining the provinces of Diyarbakır, Bingöl, and Mardin in the Southeastern Anatolia Region. The region's unique socio-economic and cultural structure may lead to differences in factors that influence investment behavior. This study makes an original contribution to the literature by revealing the behavioral tendencies of investors in this region. By exploring how the region's cultural characteristics influence investors' behavioral tendencies, this study contributes significantly to the behavioral finance literature. In particular, cultural factors such as traditional investment habits in the region, the influence of religious beliefs, and the role of family elders in investment decisions are analyzed in detail regarding their effects on investors' risk perception and decision-making processes. Emerging markets like Türkiye, with their distinct economic and institutional structures, offer an important area for behavioral finance research. This study contributes empirical evidence to the emerging markets literature by examining the behavior of investors in Türkiye's Southeastern Anatolia Region. Based on survey data collected in Diyarbakır, Bingöl, and Mardin, the study empirically tests the validity of behavioral finance theories in this region. This empirical analysis provides concrete evidence to support theoretical discussions in the literature, making a significant contribution.

While the behavioral finance literature has predominantly focused on Western countries and metropolitan areas, emerging markets like Türkiye present a unique context due to their distinct socio-economic and cultural structures (Shiller, 2003). The Southeastern Anatolia Region, in particular, is characterized by lower levels of financial literacy, a prevalence of traditional investment habits, and the significant influence of cultural factors such as religious beliefs and family dynamics (Lusardi & Mitchell, 2014). Sociologically, this region, often referred to as "Eastern Türkiye" in political discourse, stands apart from other regions due to its unique lifestyle, ethnic background, and family dynamics, which not only shape the way of life but may also

influence financial investment styles and habits. The absence of prior research on behavioral finance tendencies in this region makes this study particularly significant.

This study aims to address the following research questions: (1) To what extent do demographic factors such as education level, gender, and age influence the behavioral finance tendencies of individual investors in the Southeastern Anatolia Region? (2) How do cultural factors, including religious beliefs and family dynamics, shape investors' risk perceptions and decision-making processes in this region? (3) What role does financial literacy play in mitigating cognitive biases among investors in a socio-economically disadvantaged area? By answering these questions, the study seeks to provide a comprehensive understanding of investor behavior in an understudied region and contribute to the development of targeted financial education initiatives.

This study examines the following hypotheses to test the influence of demographic factors, cultural influences, and financial literacy on behavioral finance tendencies:

Education Level

H0: Education level does not influence behavioral finance tendencies (e.g., overconfidence, loss aversion).

H1: Education level influences behavioral finance tendencies.

H1a: Higher education levels reduce cognitive biases (e.g., overconfidence, loss aversion).

Gender

H0: Gender does not influence behavioral finance tendencies.

H1: Gender influences behavioral finance tendencies.

H1a: Males exhibit greater overconfidence bias compared to females.

Age

H0: Age does not influence behavioral finance tendencies.

H1: Age influences behavioral finance tendencies.

H1a: Younger investors exhibit greater risk-taking tendencies compared to older investors.

Occupation

H0: Occupation does not influence behavioral finance tendencies.

H1: Occupation influences behavioral finance tendencies.

H1a: Occupations requiring financial expertise exhibit fewer cognitive biases.

Income

H0: Income level does not influence behavioral finance tendencies.

H1: Income level influences behavioral finance tendencies.

H1a: Higher-income investors exhibit greater portfolio diversification tendencies.

Marital Status

H0: Marital status does not influence behavioral finance tendencies.

H1: Marital status influences behavioral finance tendencies.

H1a: Married investors exhibit more conservative investment preferences compared to single investors.

Cultural Factors

H0: Cultural factors (e.g., religious beliefs, family dynamics) do not influence behavioral finance tendencies.

H1: Cultural factors influence behavioral finance tendencies.

H1a: Strong religious beliefs and family influence increase risk aversion tendencies.

Financial Literacy

H0: Financial literacy does not influence behavioral finance tendencies.

H1: Financial literacy influences behavioral finance tendencies.

H1a: Higher financial literacy reduces cognitive biases (e.g., herding behavior, loss aversion).

2. Literature Review

The analysis of investment decisions made by individual investors through the lens of behavioral finance reveals a complex interplay of psychological biases, emotional influences, and cognitive errors that significantly deviate from the rational decision-making models proposed by traditional finance. Behavioral finance posits that individual investors are often subject to heuristic biases that impair their judgment and lead to suboptimal investment choices. For instance, Shah et

al. highlight that cognitive errors and fundamental heuristics play a crucial role in shaping the decision-making processes of investors, ultimately affecting market efficiency (Shah et al., 2018). This assertion is supported by Kumari et al., who emphasize that psychological and behavioral variables are pivotal in understanding how investors approach their investment decisions, particularly through frameworks such as prospect theory and self-control issues (Kumari et al., 2022). Overconfidence bias is one of the most prevalent psychological factors influencing investment decisions. Metwally discusses how overconfidence can lead investors to overestimate their knowledge and abilities, which in turn affects their information acquisition strategies and overall investment performance (Metwally, 2023). This notion is echoed by Zhang, who explores the implications of overconfidence on investment strategies, suggesting that such biases can lead to significant deviations from optimal investment behavior (Zhang, 2023). Furthermore, the work of Rauf et al. demonstrates that both overconfidence and loss aversion biases substantially impact the decision-making processes of equity investors, reinforcing the idea that these cognitive biases are systematic influences on investor behavior (Rauf et al., 2018). The role of information in investment decisions cannot be overstated. Anshu argues that the lack of information efficiency in financial markets often leads investors to make irrational decisions based on preconceived behavioral notions (Anshu, 2024). This is particularly relevant in bearish market trends, where fear and uncertainty can exacerbate irrational behaviors. The findings of Zhou further illustrate the growing complexity of investor behavior in the digital age, suggesting that machine learning applications could enhance our understanding of these behaviors and improve predictive models for investment decisions (Zhou, 2023). Moreover, the phenomenon of herding behavior, where investors mimic the actions of others, is another significant aspect of behavioral finance. Devadas and Vijayakumar note that cognitive biases contribute to herd behavior, leading to collective irrationality among investors (Devadas & Vijayakumar, 2019). This behavior can create market anomalies and exacerbate volatility, as individuals often follow the crowd rather than relying on their analysis. The implications of such behaviors are profound, as they challenge the assumptions of market efficiency and rationality that underpin traditional financial theories. The emotional dimensions of investment decisions are also critical. Baker and Wurgler highlight the impact of investor sentiment on stock market dynamics, asserting that sentiment can lead to discernible effects on individual firms and the broader market (Baker & Wurgler, 2007). This sentiment-driven behavior aligns with the findings of Herwiyanti et al., who emphasize that psychological factors

such as fear, hope, and optimism significantly influence investment choices (Herwiyanti et al., 2023).

The interplay of these emotions can lead to decisions that deviate from rationality, particularly in volatile market conditions. Furthermore, the concept of loss aversion, as articulated by Statman, suggests that investors are more sensitive to potential losses than to equivalent gains, which can lead to irrational decision-making, such as holding onto losing investments for too long (Statman, 2008). This behavioral tendency is supported by the empirical evidence presented by Fikriyah, who identifies various factors, including psychological influences, that shape investment decisions (Fikriyah, 2023).

Behavioral finance has garnered significant attention over the past few decades, particularly in understanding the investment decisions made by individual investors. The interplay between psychological factors and economic behavior reveals that many decisions are not based on rational analysis but are influenced by emotions and cognitive biases. This literature review will examine various studies that delve into these aspects, offering insights into how emotional biases, investor sentiment, and psychological factors shape individual investor behavior. One study by Husnatarina et al. in 2022 focuses on intrinsic motivation as a determinant of Islamic stock investment decision-making. The authors employed qualitative methodologies to explore how individual beliefs and personal motivation influence investment choices within an Islamic framework. The findings elucidate that while rational decision-making is preferred, psychological factors such as individual beliefs about financial independence and lifestyle improvements play an essential role in guiding investment behavior (Husnatarina et al., 2022). Moreover, the study emphasizes the significance of personal values rooted in cultural and religious contexts, asserting that emotional and psychological factors substantially affect decision-making processes.

Adding another dimension, the work of Sachdeva et al. in 2021 investigates the concept of herding behavior among investors in the Indian stock market. Utilizing both quantitative and qualitative analyses, the study reveals that investors often follow the crowd in their investment decisions, largely driven by emotions such as fear and greed, particularly during periods of market volatility. This herding tendency results in a departure from rational behavior and can amplify market fluctuations, accentuating the dynamics of behavioral finance (Sachdeva et al., 2021). The authors emphasize that emotional responses to market movements significantly alter investment

choices, indicating a pattern consistent with behavioral finance theory. Further exploring emotional influences, Sapkota's 2023 research highlights the impact of emotional biases on equity investment among individual investors in Nepal. Using a survey-based quantitative approach, the study discovers that biases such as overconfidence and status quo bias lead to irrational decision-making. Key findings suggest that emotional biases are prevalent and have a tangible effect on financial outcomes for investors, closely aligning with established behavioral finance theories which assert that emotional decision-making can lead to suboptimal investment strategies (Sapkota & Chalise, 2023; Sapkota, 2023). This research underscores the critical link between psychological predispositions and actual financial decisions in the marketplace. In similar inquiries, Chen's 2023 empirical study discusses how investor sentiment can significantly impact stock returns. The analysis reveals that fluctuations in emotions, influenced by external market events, can lead to deviations in stock prices from their intrinsic values. The research employs econometric models to draw correlations between sentiment indicators and market performance, reinforcing the importance of recognizing emotional states in understanding market dynamics (Chen, 2023). This relationship illustrates how psychological phenomena can directly affect financial metrics, supporting the core principles of behavioral finance regarding emotional influences in investment contexts.

Moreover, Afriany et al. explore the behavioral factors affecting individual investment decisions amid the COVID-19 pandemic. They employed a mixed-method approach, combining surveys and interviews to gather data on investor sentiment during this unprecedented time. The findings indicate heightened emotional responses, such as panic and optimism, that significantly shaped decision-making processes. The study concludes that external shocks, coupled with psychological biases, affect investment behavior in highly volatile environments (Afriany et al., 2022). This aligns with broader behavioral finance discussions on the responsiveness of investors to external stimuli and emphasizes the necessity to consider psychological factors in financial decision-making.

In addition, the work of Divanoğlu and Bağci (2018) provides insights into the socio-economic and psychological drivers influencing individual investor behavior in Turkey. Through statistical analysis, they identify various stimuli that shape investment decisions, illustrating the intertwined nature of economic conditions and personal psychological states in the financial decision-making process (Divanoğlu & Bağcı, 2018). Such findings contribute to the global

discourse on behavioral finance by showcasing how regional contexts interact with psychological components to inform investment choices. Lastly, (Jain et al., 2021) emphasize the importance of developing metrics to capture behavioral biases effectively. By constructing a reliable scale for measuring these biases, their research addresses the complexities involved in the decision-making processes of investors, further grounding the theoretical understanding of behavioral finance within empirical frameworks. This scale allows for a nuanced analysis of how biases influence financial outcomes, affirming the need for a dedicated exploration of psychological factors in investment behavior (Jain et al., 2021). Each of these studies underscores the multifaceted nature of investment decisions where psychological influences play a critical role. While traditional finance operates on principles of rational choice and market efficiency, the findings from these behavioral finance studies reveal that investors often deviate from rationality due to emotional biases and cognitive errors. The exploration of sentiment, herding behavior, and intrinsic motivations exemplifies the overarching themes in behavioral finance, highlighting the necessity for investors, educators, and policymakers to understand the psychological drivers behind investment behavior.

In conclusion, behavioral finance presents a wealth of insights regarding how psychological factors impact individual investors' decisions. Through various empirical and theoretical explorations, the literature reveals that emotions, cognitive biases, and personal beliefs significantly influence investment behavior. As the financial landscape continues to evolve, incorporating behavioral finance perspectives becomes increasingly vital in developing more effective investment strategies and educational frameworks. Understanding these influences allows for a more realistic portrayal of investors, paving the way for improved decision-making processes in financial markets.

3. Materials and Methods

The study employed a structured questionnaire to analyze the influence of psychological, sociological, demographic, internal, and external environmental factors on the investment behaviors of individual investors. Within the scope of the study, a survey was applied to 600 people in 2023, but 58 surveys were canceled because they were filled out incorrectly. As a result, 542 surveys were included in the scope of the study. Due to the low education levels and limited computer usage among the participants, an online survey method was not utilized. A survey was used as the data collection tool, and data were gathered through face-to-face interviews. The survey

used in the study was adapted from the work of Kuzey (2019) and Karaca (2015), with the behavioral tendencies section, including the propositions listed in Table 3, specifically drawn from Kuzey (2019).The study was conducted in accordance with ethical standards. Participants were informed about the study's purpose and data use and provided written consent. Participant identities were kept confidential, and data were anonymized for analysis.

The data were analyzed using the SPSS Statistical 25 Package for the Social Sciences. Independent samples t-tests were applied to test the effects of gender and marital status on behavioral finance tendencies (H0, H1, H1a: Gender and Marital Status). One-way analysis of variance (ANOVA) was used to examine the effects of education level, age, occupation, and income (H0, H1, H1a: Education, Age, Occupation, Income). Descriptive analyses were conducted for cultural factors and financial literacy, but no statistical tests were applied (H0, H1, H1a: Cultural Factors, Financial Literacy). Post-hoc tests (Bonferroni) were used to identify significant differences. The survey was divided into three sections. In the first section, socio-demographic characteristics of individual investors in Diyarbakır, Bingöl, and Mardin were analyzed by asking participants about their gender, age, marital status, education level, occupation, and monthly income level.

The second section included questions to determine whether individual investors save from their income, whether they have received financial education, whether they follow developments in financial markets, whether their psychological state influences their investment decisions, the types of investment instruments they use, the number of years they have been investing, their risk tolerance, the sources of information they rely on for investments, the primary factors they consider when choosing investments, and their views on under what circumstances they take risks. In the third section, the behavioral structures and tendencies of the individual investors participating in the survey were investigated. A 5-point Likert scale was used to measure the levels of these behavioral tendencies.

The questionnaire used in this study was adapted from previous studies by Kuzey (2019) and Karaca (2015), which were specifically designed to measure behavioral finance tendencies among individual investors. To ensure the validity and reliability of the instrument in the context of the Southeastern Anatolia Region, several steps were taken. First, the questionnaire items were reviewed by a panel of experts in behavioral finance to confirm content validity. Second, a pilot

test was conducted with 30 participants from the target population to assess the clarity and relevance of the items, and minor revisions were made based on their feedback. Finally, the reliability of the behavioral tendencies section (measured using a 5-point Likert scale) was evaluated using Cronbach's alpha, yielding a coefficient of 0.82, which indicates a high level of internal consistency (Nunnally, 1978). These steps ensured that the questionnaire was both valid and reliable for capturing the behavioral finance tendencies of individual investors in this region.

4. Results

4.1. Demographic Characteristics of Individual Investors Participating in the Research

4.1.1. Socio-Economic Profile

Understanding the demographic characteristics of the 542 individual investors participating in the study provides a foundation for interpreting their behavioral finance tendencies. Table 1 summarizes the socio-economic profile of the participants. The majority of investors are male (76.9%), aged between 20-34 (45.2%), and married (62.2%). Education levels vary, with 9.2% being literate, 29.3% having primary school education, 25.6% high school, 11.1% an associate degree, 21.6% a bachelor's degree, and 3.1% postgraduate education. Occupationally, 23.6% are self-employed, and 89.3% have a monthly income above 5001 TL. In terms of investment preferences, gold (32.3%) and real estate (24.4%) are the most popular instruments, reflecting a preference for traditional and low-risk options. Investors primarily rely on friends' advice (23.98%) and TV/economic news channels (23.61%) as information sources. These characteristics align with the region's socio-economic context and provide insights into the factors influencing investment behavior.

Table 1

Socio-Economic Characteristics and Investment Preferences of Individual Investors

Category	Subcategory	Frequency	Percent
Gender	Female	125	23.1
	Male	417	76.9
Age	20-34	245	45.2
	35-44	154	28.41
	45-54	80	14.76
	55-64	36	6.64
	65+	27	4.98
Marital Status	Married	338	62.2
	Single	204	37.6

Education	Literate	50	9.2
	Primary School	159	29.3
	High School	139	25.6
	Associate Degree	60	11.1
	Bachelor's Degree	117	21.6
	Postgraduate	17	3.1
Occupation	Student	31	5.7
	Public Employee	100	18.5
	Worker	107	19.7
	Self-Employed	128	23.6
	Retired	36	6.6
	Housewife	26	4.8
	Other	114	21.0
Income (TL)	1-1000	19	3.5
	1001-2000	16	3.0
	2001-4000	7	1.3
	4001-5000	16	3.0
	5001-	484	89.3
Investment Instrument	Bank Deposit	60	11.1
	Bonds	10	1.8
	Futures Contracts	10	1.8
	Investment Funds	29	5.4
	Stocks	48	8.9
	Treasury Bills	11	2.0
	Real Estate	132	24.4
	Gold	175	32.3
	Foreign Exchange	67	12.4
Information Sources	Brokerage Firm Recommendations	74	13.65
	Social Media Channels	62	11.43
	Newspapers and Economic Magazines	48	8.85
	Websites	100	18.45
	TV/Economy and News Channels	128	23.61
	Friends' Advice	130	23.98

Table 1 presents the socio-economic characteristics of the surveyed individual investors. According to the frequency analysis conducted to determine the gender of the individual investors who participated in the survey, 23.1% of the participants were female, while 76.9% were male. Out of 542 participants, 125 were female and 417 were male. When examining the age distribution, it is observed that a significant portion of the investors (45.2%) fall within the 20-34 age range. This is followed by the 35-44 age group (28.41%), the 45-54 age group (14.76%), the 55-64 age group (6.64%), and the 65+ age group (4.98%). In terms of marital status, 62.2% of the participants are married, while 37.6% are single. When analyzing education levels, 9.2% of the investors are literate, 29.3% have primary education, 25.6% have high school education, 11.1% have an associate degree, 21.6% have a bachelor's degree, and 3.1% have postgraduate education.

Regarding occupational distribution, 23.6% of the investors are self-employed, 19.7% are workers, 18.5% are civil servants, 5.7% are students, 6.6% are retired, 4.8% are homemakers, and 21.0% fall into other occupations. In terms of income level, the vast majority of investors (89.3%) have an income of 5001 TL or more, while 3.5% fall within the 1-1000 TL range, 3% within the 1001-2000 TL range, 1.3% within the 2001-4000 TL range, and 3% within the 4001-5000 TL range. When examining the investment preferences of the investors, the most popular investment instrument is gold, with 32.3% preference. This is followed by real estate (24.4%), foreign exchange (12.4%), and bank deposits (11.1%). Instruments such as stocks (8.9%), investment funds (5.4%), treasury bills (2.0%), bonds (1.8%), and futures contracts (1.8%) are less preferred. Among the sources of information that investors consult when making investment decisions, the most common ones are friend recommendations (23.98%) and TV/economic news channels (23.61%). Websites (18.45%), brokerage firm recommendations (13.65%), social media (11.43%), and newspapers and economic magazines (8.85%) also stand out as significant sources of information.

4.1.2. Investment Behavior and Preferences

To further understand the investment behavior of the 542 individual investors, additional survey questions explored their decision-making processes, risk preferences, and investment strategies. When examining the criteria considered in the choice of investment instruments, 30.3% of investors cited exchange rates, 19% cited personal feelings/intuitions, 11.1% cited tips, and 10.5% cited analysis methods as their primary criteria. Additionally, 46.7% of investors view the rate of return as the most important factor in their choice of investment instruments, followed by security (34.3%), risk (13.1%), and minimizing risk through portfolio diversification (5.9%). When analyzing the investment experience of the investors, it is observed that 32.7% have 1-3 years of experience, 21.6% have 4-6 years, and 16.2% have more than 10 years of investment experience. The number of investment instruments in investors' portfolios reveals a preference for limited diversification: 19.0% of participants invest in only one instrument, 38.7% in two instruments, 26.9% in three instruments, and 11.4% in four or more instruments, indicating that 74.6% maintain a small number of investment instruments (one or two) in their portfolios.

When analyzing the risk level of investors' portfolios, 52.2% of investors describe their portfolios as having a "medium" risk level, while 34.9% describe them as "low" risk and 12.9% as "high" risk. The distribution of how investors make their investment decisions shows that a

significant majority (73.8%) adopt an autonomous approach: 38.6% make decisions entirely on their own, while 35.2% consult people they trust for their financial expertise but ultimately make the final decision themselves. Meanwhile, 15.3% make decisions based on the guidance of people around them, and 10.9% seek professional advice (with 7.4% making the decision themselves despite seeking advice and 3.5% following professional recommendations). When evaluating their own investment strategies compared to other investors, 62.7% of participants perceive their strategies as "average," 18.5% as "better than average," and 18.8% as "worse than average." In terms of risk-taking preferences, 76.6% of participants prefer to take risks only "if there is a potential gain," while 23.4% are willing to take risks "even if there is a potential loss." Finally, in a specific decision-making scenario, 54.8% of participants prefer a guaranteed gain of 3000 TL with 100% certainty, while 45.2% opt for an 80% chance of gaining 4000 TL. These findings highlight the conservative investment behavior prevalent in the region, likely influenced by socio-cultural factors such as risk aversion and a preference for traditional investment instruments

Table 2

Distribution of Responses to Questions Prepared Using a Binary (Yes/No) Scale

Question	**Frequency**		**Percent**	
	Yes	No	Yes	No
Do you allocate a portion of your income to savings?	432	110	79.7	20.3
Have you received any education or training in finance?	78	464	14.4	85.6
Do you follow developments in financial markets?	310	232	57.2	42.8
Does your psychological state influence your investment decisions?	261	281	48.2	51.8
TOTAL	**542**		**100**	

The data presented in Table 2 provides significant insights into the financial behaviors and attitudes of the participants. A large majority of the participants (79.7%) stated that they allocate a portion of their income to savings, while the rate of receiving financial education or training is quite low (14.4%). The rate of following developments in financial markets was determined to be 57.2% for those who do, while 42.8% do not follow such developments. Additionally, nearly half of the participants (48.2%) indicated that their psychological state influences their investment

decisions, with 51.8% stating it does not. These findings highlight the important role that financial literacy and psychological factors play in shaping individuals' financial decisions. This analysis underscores the need for increased financial education and awareness, as well as the consideration of psychological factors when understanding investment behaviors.

4.2. Analysis of Behavioral Finance Tendencies of Individual Investors

To determine the attitudes of the 542 participants toward behavioral finance propositions regarding investor tendencies, their responses to the questions in the survey were analyzed. In the third section of the survey, the behavioral finance tendency scores for 13 propositions were calculated. These scores were then tested against demographic variables. Initially, the normality of the questions was examined, and it was found that the questions were normally distributed. Each proposition in the third section measures a distinct financial tendency. The propositions and the tendencies they measure are presented in Table 3 below.

Table 3

The Trends Measured by the Survey Propositions

Proposition	**Bias/Tendency Measured**
I have high confidence in myself and my investment both before and after making an investment.	Overconfidence Bias
Do you agree with the view that "stocks of well-known companies (e.g., major banks, large industrial firms) are good investments"?	Representativeness Bias
If the price of a stock I purchased falls, I buy more to reduce the average cost.	Cognitive Dissonance Bias
In case of a cash need, I sell Investment B, which has gained 15%, instead of Investment A, which has lost 15%, despite having the same cost.	Regret Aversion Bias
I prefer safe but low-return investment instruments over risky and high-return ones.	Uncertainty Aversion Bias
A financial instrument that has yielded high returns for me in the past but is now causing losses will generate returns again in the future.	Availability Heuristic
My political views significantly influence my investment decisions.	The Impact of Sociocultural Factors on Investment Decisions
My religious beliefs significantly influence my investment decisions.	The Impact of Sociocultural Factors on Investment Decisions
I closely monitor the investment decisions of my close social circle and take similar positions.	The Impact of Sociocultural Factors on Investment Decisions
Even if small banks offer high interest rates, I deposit my savings in large banks.	Uncertainty Aversion Bias

If I make a profit from my investment, I become more inclined to take higher-risk investments.	Hedonic Adjustment Bias
If I am incurring losses from my investment, I hold onto it until it recovers and covers my losses before selling.	Regret Aversion Bias
When investors realize that other investors are also investing in the same stock, they assume that their investment is a good one.	Confirmation Bias

Source. Kuzey (2019)

4.3. Analysis of the Relationship Between Demographic Variables and Behavioral Finance Tendencies

This section presents the results of statistical analyses testing the hypotheses outlined in Section 1. The relationships between behavioral finance tendencies and gender (H0, H1, H1a: Gender), marital status (H0, H1, H1a: Marital Status), education level (H0, H1, H1a: Education), age (H0, H1, H1a: Age), occupation (H0, H1, H1a: Occupation), and income (H0, H1, H1a: Income) were examined. Independent samples t-tests were used for gender and marital status, while one-way ANOVA was used for other variables. Descriptive analyses were conducted for cultural factors and financial literacy, but no statistical tests were applied (H0, H1, H1a: Cultural Factors, Financial Literacy). The following table summarizes the test results and hypothesis decisions.

Table 4

Relationships Between Demographic Variables and Behavioral Finance Tendencies

No	Relationship	Test	F	t	p-value	Hypothesis Decision
1	Gender and Behavioral Finance Tendencies	Independent Samples T-Test	0.244	-0.361	0.718	H0 not rejected
2	Marital Status and Behavioral Finance Tendencies	Independent Samples T-Test	0.563	1.594	0.111	H0 not rejected
3	Age and Behavioral Finance Tendencies	ANOVA	1.178	-	0.310	H0 not rejected
4	Education and Behavioral Finance Tendencies	ANOVA	3.060	-	0.010	H0 rejected, H1a supported
5	Occupation and Behavioral Finance Tendencies	ANOVA	0.983	-	0.436	H0 not rejected
6	Income and Behavioral Finance Tendencies	ANOVA	0.849	-	0.494	H0 not rejected

For relationships (1) and (2) in Table 4, the following hypotheses were formulated:

H0: "There is no difference between the means of the two groups."

Ha: "There is a difference between the means of the two groups."

A t-test was then conducted to test the hypotheses. If the test result shows $P < 0.05$, the null hypothesis (H0) would be rejected. If $P > 0.05$, the null hypothesis would be accepted. For relationship (1), the test result showed that "Equal variances assumed" was accepted (sig = .622 > 0.05). Since the sig value in the same row is .718, which is greater than 0.05, the H0 hypothesis was accepted. This indicates that there is no significant difference between the means of the male and female groups. For relationship (2), the sig value was .111, which is greater than 0.05, meaning the H0 hypothesis was accepted. The test result indicates that there is no significant difference between individuals' marital status and their behavioral finance tendencies. For the analysis of relationships (3), (4), (5), and (6), an ANOVA test was performed. In the analysis of relationship (3), the sig value was .310, which is greater than 0.05, indicating that no significant difference was found between the groups. Behavioral finance tendencies did not differ among the groups. Since there was no statistically significant difference, post-hoc tests were not conducted between the groups.

For relationship (4), the ANOVA test resulted in a sig value of .01. Since 0.01 is less than 0.05, it indicates a significant difference in behavioral finance tendencies between the groups. Before performing post-hoc tests, the Test of Homogeneity of Variances was applied to check whether the variances were homogeneously distributed, and it was confirmed that the variances were indeed homogeneous. After this step, post-hoc tests were conducted. Among the post-hoc tests, the Bonferroni test, a commonly used test for equal variances, was selected. The test results revealed that the difference between groups primarily stemmed from the high school and primary school groups, with high school graduates exhibiting lower behavioral finance tendencies (e.g., reduced susceptibility to cognitive biases like overconfidence and loss aversion) compared to primary school graduates, likely due to their greater exposure to financial concepts. For relationship (5), the analysis resulted in a sig value of .436. Since the sig value is greater than 0.05, no statistically significant difference was found between the occupational groups. Similarly, for the analysis of relationship (6), no statistically significant difference was found between the income groups. Since no significant difference was identified between the groups, no further post-hoc analysis was conducted.

The survey included items to measure the influence of socio-cultural factors, such as religious beliefs and social interactions, on investment decisions (see Table 3). However, the influence of cultural factors (e.g., religious beliefs, social interactions) and financial literacy on

behavioral finance tendencies was analyzed descriptively in this study. Statistical tests (e.g., regression analysis) are needed to fully understand their effects, representing a limitation of this study.

For instance, participants were asked to what extent their religious beliefs and the investment decisions of their close social circle influenced their own choices. Descriptive analysis revealed that a notable portion of investors acknowledged the impact of these factors, with many preferring traditional and low-risk investment instruments like gold (32.3%) and real estate (24.4%), which may reflect the influence of cultural conservatism and risk aversion shaped by religious beliefs (Shiller, 2003). However, a detailed statistical analysis of the relationship between these socio-cultural factors and behavioral finance tendencies was not conducted in this study due to the primary focus on demographic variables. This limitation suggests an important avenue for future research, which could employ regression analysis or structural equation modeling to explore how cultural factors, such as religious beliefs and family dynamics, interact with cognitive biases in shaping investment behavior.

4.4. Discussion of Findings

The findings of this study provide valuable insights into the behavioral finance tendencies of individual investors in the Southeastern Anatolia Region, particularly in relation to demographic factors. The significant relationship between education level and behavioral finance tendencies ($F=3.060$, $p=0.010$) aligns with prior research suggesting that education enhances financial literacy, thereby reducing susceptibility to cognitive biases. For instance, Lusardi and Mitchell (2011) argue that individuals with higher education levels are more familiar with financial concepts, which may mitigate biases such as loss aversion and overconfidence. In this study, the post-hoc tests revealed that the difference primarily stems from high school and primary school graduates, indicating that even a moderate increase in education can significantly influence rational decision-making. This finding is particularly relevant in the cultural context of the Southeastern Anatolia Region, where low literacy rates and limited access to financial education may exacerbate behavioral biases. The region’s socio-economic structure, characterized by a reliance on traditional investment instruments like gold and real estate (Table 1), may further amplify the role of education in shaping investor behavior, as individuals with higher education are more likely to explore diverse investment options and adopt a more analytical approach (Lusardi & Mitchell, 2014).

In contrast, the lack of a significant relationship between gender (t=-0.361, p=0.718) and age (F=1.178, p=0.310) and behavioral finance tendencies diverges from some existing studies. For example, Barber and Odean (2001) found that gender significantly influences investment behavior, with men exhibiting greater overconfidence than women in the U.S. context. The absence of such a relationship in this study may be attributed to the region's cultural dynamics, where traditional gender roles and family decision-making structures may overshadow individual demographic differences. Similarly, the non-significant effect of age could be linked to the region's relatively homogenous investment culture, where both younger and older investors tend to prioritize security over risk, as evidenced by their preference for gold and real estate.

These findings suggest that in culturally conservative and socio-economically disadvantaged regions, contextual factors may play a more dominant role in shaping investor behavior than demographic characteristics like gender and age. Future research could further explore these cultural influences using qualitative methods to provide a deeper understanding of their impact on behavioral biases. The lack of significant relationships between behavioral finance tendencies and occupation (F=0.983, p=0.436), income (F=0.849, p=0.494), and marital status (t=1.594, p=0.111) can be explained by the socio-economic and cultural context of the Southeastern Anatolia Region. The region's economic homogeneity and limited financial literacy may reduce behavioral differences across occupations and income levels. Similarly, traditional family structures and community-oriented decision-making processes may minimize differences in investment behaviors between married and single investors. These findings suggest that regional cultural dynamics, rather than individual demographic factors, primarily shape investment behaviors.

The preference for traditional investment instruments like gold (32.3%) and real estate (24.4%), as observed in Section 4.1.2, may be linked to the region's low education levels, particularly among primary school graduates, who exhibit higher behavioral finance tendencies. Higher education levels, such as high school and above, may encourage investors to explore more diverse and modern investment options, such as stocks (8.9%) and investment funds (5.4%), by reducing biases like uncertainty aversion and enhancing financial literacy (Lusardi & Mitchell, 2014).

5. Conclusion

While this study found a significant relationship only between education level and behavioral finance tendencies, this finding underscores the critical role of financial literacy in mitigating cognitive biases, particularly in a region with low literacy rates and limited access to financial education. The non-significant effects of other demographic variables, such as gender, age, and income, do not diminish the study's value but rather highlight the unique socio-cultural context of the Southeastern Anatolia Region, where traditional investment habits and family dynamics may overshadow individual demographic differences (Shiller, 2003). This insight is crucial for understanding investor behavior in emerging markets and designing targeted interventions to enhance financial decision-making. However, the reliance on t-tests and ANOVA in this study may have limited the ability to capture more complex relationships between variables. Future research could employ more advanced statistical methods, such as regression analysis or structural equation modeling, to explore the interactions between demographic, cultural, and psychological factors in greater depth, potentially yielding more nuanced insights into investor behavior. This study investigated the behavioral finance tendencies of 542 individual investors in the Southeastern Anatolia Region of Türkiye (Diyarbakır, Bingöl, Mardin). This study rejected the H0 hypothesis for education level ($F=3.060$, $p=0.010$) but not for gender ($t=-0.361$, $p=0.718$), age ($F=1.178$, $p=0.310$), occupation ($F=0.983$, $p=0.436$), income ($F=0.849$, $p=0.494$), or marital status ($t=1.594$, $p=0.111$). Cultural factors and financial literacy were examined descriptively, with no statistical tests applied.

The findings revealed a significant relationship between education level and behavioral finance tendencies ($F=3.060$, $p=0.010$), with post-hoc tests indicating that this difference primarily stems from disparities between high school and primary school graduates. However, no statistically significant relationships were found between other demographic variables such as gender ($t=-0.361$, $p=0.718$), age ($F=1.178$, $p=0.310$), occupation ($F=0.983$, $p=0.436$), and income ($F=0.849$, $p=0.494$) and behavioral finance tendencies. These results highlight the pivotal role of education in enhancing financial literacy and reducing cognitive biases in a region characterized by low literacy rates and traditional investment habits. This study highlights the conservative investment behavior in the Southeastern Anatolia Region, where investors predominantly prefer traditional instruments like gold (32.3%) and real estate (24.4%) and exhibit risk aversion, with 76.6% willing to take risks only if there is a potential gain (Section 4.1.2). The significant relationship between

education level and behavioral finance tendencies (F=3.060, p=0.010) underscores the need for targeted financial literacy programs to mitigate cognitive biases and encourage portfolio diversification.

The findings have several implications for policymakers, educators, and investment advisors. First, the significant impact of education suggests that financial literacy programs should be integrated into primary and high school curricula to foster rational decision-making from an early age (Lusardi & Mitchell, 2014). Second, the preference for traditional investment instruments like gold and real estate indicates a need for investment advisors to educate investors about the benefits of portfolio diversification and modern financial instruments, such as stocks and investment funds. Finally, the influence of cultural factors, such as family dynamics, suggests that financial education initiatives should adopt a community-based approach, involving local leaders and family elders to enhance their effectiveness in the region. These findings have significant implications for policymakers, educators, and investment advisors. First, integrating financial literacy programs into primary and secondary school curricula could foster rational decision-making skills from an early age. Second, the preference for traditional investment vehicles such as gold and real estate suggests that investment advisors should emphasize the benefits of portfolio diversification and introduce modern instruments like stocks or mutual funds. Finally, given the region's family dynamics and cultural conservatism, community-based financial education initiatives led by local leaders and family elders may be more effective. For example, workshops targeting primary school graduates, facilitated by local leaders, could enhance financial literacy and reduce cognitive biases.

Despite its contributions, this study has limitations, including its focus on only three cities and the lack of detailed analysis of cultural factors. Additionally, the effects of cultural factors and financial literacy were examined descriptively, with no statistical analysis conducted. Future research could explore these factors' relationships with behavioral finance tendencies using regression analysis or structural equation modeling. Additionally, the reliance on t-tests and ANOVA may have limited the ability to capture more complex relationships between variables. Future research could address these gaps by employing qualitative methods and more advanced statistical techniques, such as regression analysis or structural equation modeling, to explore the interplay between cultural, demographic, and psychological factors in greater depth, potentially yielding more nuanced insights into investor behavior.

Declaration of Research and Publication Ethics

In order to apply the survey method in this study, permission was obtained from the Dicle University Social and Human Sciences Ethics Committee with the decision numbered 466922 dated 24.03.2023, and research and publication ethics were complied with in the study.

Researcher's Contribution Rate Statement

Since the author is the sole author of the article, his contribution rate is 100%.

Declaration of Researcher's Conflict of Interest

There are no potential conflicts of interest in this study.

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