

The Effect of FoMO, Uncertainty Avoidance and Impulsiveness on Financial Investment Decisions of Individual Investors

Bireysel Yatırımcıların Finansal Yatırım Kararlarında FoMO, Belirsizlikten Kaçınma ve Dürtüsellik Etkisi

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ABSTRACT

The increase in the use of internet, mobile devices and social media tools causes an increase in the factors affecting the investment decisions of individual investors. Especially social media platforms can trigger individual investors' fear of missing out (FoMO), uncertainty avoidance and impulsive buying emotions, which can direct investors' behavior and directly affect their investment decisions. In the literature, FoMO, uncertainty avoidance and impulsiveness, which have been studied in marketing, communication, and psychology, have been addressed separately in a few studies in finance. The most important point that distinguishes this study from other studies is that the relationship between FoMO, uncertainty avoidance and impulsiveness in the investment decisions of individual investors is studied together. The data used in the study was collected through a survey to measure uncertainty avoidance, impulsivity and FoMO levels from people over the age of 18, who have income and have made at least one financial investment. In the study, factor analysis was conducted on the participants' investment preferences, uncertainty avoidance, impulsivity and FoMO scales, Cronbach Alpha values of the factors were examined, and then cluster analysis was conducted for each scale. In the study, by examining individual investors' investment preferences and investment frequency separately, it was concluded that investors who invest in the same investment type exhibit different behaviors according to their investment frequency. This shows that investors who invest in the same investment instruments have different levels of FoMO, impulsiveness and uncertainty avoidance. The relationships between the frequency of investment in each type of investment and FoMO, uncertainty avoidance and impulsiveness are presented in detail in the relevant sections of the study.

KEYWORDS

Behavioral finance, investment decisions, FoMO, uncertainty avoidance, impulsiveness

ÖZ

İnternet, mobil cihaz ve sosyal medya araçlarının kullanımının artması, bireysel yatırımcıların yatırım kararlarını etkileyen faktörlerinde artmasına neden olmaktadır. Özellikle sosyal medya platformları, bireysel yatırımcıların gelişmeleri kaçırma korkusu (FoMO), belirsizlikten kaçınma ve dürtüsel satın alma duygularını tetikleyerek yatırımcıların davranışlarını yönlendirebilir ve yatırım kararlarını doğrudan etkileyebilir. Literatürde pazarlama, iletişim ve psikoloji alanlarında incelenen FoMO, belirsizlikten kaçınma ve dürtüsellik, finans alanında yapılan birkaç çalışmada ayrı ayrı ele alınmıştır. Bu çalışmayı diğer çalışmalardan ayıran en önemli nokta, bireysel yatırımcıların yatırım kararlarında FoMO, belirsizlikten kaçınma ve dürtüsellik arasındaki ilişkinin bir arada incelenmesidir. Araştırmada kullanılan veriler, 18 yaş üstü, geliri olan ve en az bir adet finansal yatırım yapmış kişilerden belirsizlikten kaçınma, dürtüsellik ve FoMO düzeylerini ölçmeye yönelik bir anket aracılığıyla toplanmıştır. Araştırmada katılımcıların yatırım tercihleri, belirsizlikten kaçınma, dürtüsellik ve FoMO ölçekleri üzerinde faktör analizi yapılmış, faktörlerin Cronbach Alpha değerleri incelenmiş ve ardından her bir ölçek için küme analizi yapılmıştır. Çalışmada bireysel yatırımcıların yatırım tercihleri ve yatırım sıklıkları ayrı ayrı incelenerek aynı yatırım türüne yatırım yapan yatırımcıların yatırım sıklıklarına göre farklı davranışlar sergiledikleri sonucuna ulaşılmıştır. Bu durum aynı yatırım araçlarına yatırım yapan yatırımcıların FoMO, dürtüsellik ve belirsizlikten kaçınma düzeylerinin farklı olduğunu göstermektedir. Her bir yatırım türünde yatırım sıklığı ile FoMO, belirsizlikten kaçınma ve dürtüsellik arasındaki ilişkiler çalışmanın ilgili bölümlerinde ayrıntılı olarak sunulmaktadır.

ANAHTAR KELİMELELER

Davranışsal finans, yatırım kararları, FoMO, belirsizlikten kaçınma, dürtüsellik.

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INTRODUCTION

The main objective of both individual and institutional investors' investment activities is to maximize the return on their investments. In line with their investment decisions, investors have the possibility of making gains as well as losses. For this reason, investment decisions can turn into a challenging process, especially among individual investors.

Traditional finance assumes that investors are unbiased and rational beings, arguing that their only goal is maximizing their investments' benefits. However, the extent to which investors' decisions are rational has become a highly debated issue in finance. For these reasons, behavioral finance examines market anomalies that traditional finance theories fail to explain, assuming that individuals are not rational. In doing so, it uses different disciplines such as psychology, sociology, and anthropology. As stated in many studies in behavioral finance, individuals are under psychological and sociological influence when making investment decisions, as in many decisions they make in their daily lives. For this reason, individual investors and investment decisions, which constitute one of the main foundations of behavioral finance, which aims to examine the behavioral factors and the factors affecting these factors in the decision-making process of individuals, appear as the subject that behavioral finance tries to explain the most (Afsar, 2020).

Especially in the 1960s, when cognitive psychology accepted that the brain is not a stimulus-response machine but an information processing tool, behavioral understanding began to be accepted in finance, and the concept of behavioral finance emerged. Behavioral finance has pioneered brand-new studies on the economic and financial dimensions of concepts such as problem-solving and decision-making (Camerer and Loewenstein, 2004). Thus, psychology, economics, and finance science have become closer to each other. The unlimited rationality advocated in financial and economic decision-making processes has started to partially disappear, and studies that address and support the argument that people do not act rationally in their financial decisions have started to be published (Barber and Odean, 2013; Aggarwal and Goodell, 2014; Breuer et al., 2015; Breuer et al., 2014; Mak and Ip, 2017; Costa et al., 2019; Chaitanya and Nordin, 2021; Hens and Schindler, 2020; Al-Okaily et al., 2020; Rieger, 2022).

When FoMO, uncertainty avoidance and impulsiveness, which are investigated in this study to understand individuals' investment decisions, are analyzed, the concepts of emotional and cognitive response emerge. Emotional response can be defined as the feeling or emotional state that a person feels towards an event or stimulus. In contrast, cognitive response can be defined as a person's intellectual or cognitive reaction towards an event or stimulus. For example, while an investor's feeling of anxiety or fear of loss due to price declines in the market or envy of other investors' gains in the markets are emotional reactions, reactions such as making a quick decision when making an investment decision, wanting to buy stocks quickly after the publication of a news story or the tendency to follow the investments made by some investors are cognitive reactions.

In behavioral finance, emotional and cognitive reactions can affect investor behavior in financial markets. For this reason, in our study, emotional and cognitive responses such as FoMO, uncertainty avoidance and impulsiveness are investigated in investors' investment decisions, and the results we obtained are explained in detail under the relevant headings.

1. LITERATURE

It is observed that studies in the field of behavioral finance are mainly focused on understanding the psychological factors affecting the investment decisions of individual investors and their reasons (Jahanzeb, 2012; Hirshleifer, 2015; Sattar et al., 2020). However, with the developments in information and communication tools in recent years, individual investors' financial participation level has increased, and their access to financial instruments and news has become easier. This situation has led to new behavioral patterns and emotional states among individual investors.

Social media, which has become an important part of life today, has increased its influence in the field of finance as well as in other fields and has become very influential on individual investors' news and investment decisions (Kumar & Devi, 2014; Cwynar et al., 2019). However, this effect of social media has begun to blur the line between fake and real, leading to situations that can be destructive for individual investors. This situation has made the emotional states that arise due to the use of social media popular in studies in the field of finance and has been the subject of many studies (Florendo and Estelami, 2019).

Thanks to social media and smartphone applications, individuals can invest quickly and have information about other people's investments and returns, which confronts investors with different psychological states. Social media can highly influence individuals' financial decisions and financial instrument preferences due to the content produced by experts and non-experts such as financial experts, mentors, coaches and consultants through social media tools (Chen et al., 2013; Wu, 2019).

Fear of Missing Out (FoMO) is one of the concepts that emerged in connection with social media and has attracted a lot of attention recently. Although many factors affect FoMO, the gain from others' investment decisions and the concept of FoMO have been extensively discussed in the literature and have been among the stimuli on financial investment decisions (Stead and Bibby, 2017). Social media posts of individuals and experts can be seen instantly, and such posts on financial issues can influence followers. When individual investors invest in a financial asset and do not get the return they want, and when they see other options that they have not invested in and provide higher returns, they feel that they have missed these gains and experience a sense of jealousy. This feeling is called investor FoMO (Howcroft et al., 2007; Stead and Bibby, 2017; Hitay and Anbar, 2020).

Another concept related to financial investment decision in the literature is uncertainty avoidance, as "the extent to which the member of a culture feels threatened by ambiguous or unknown situations" (Hofstede, 1991; Hofstede et al., 2010). When it comes to decision-making, people hesitate more in situations of uncertainty. This tendency is called uncertainty avoidance in behavioral finance literature (Pompain, 2012). Instead of using mathematical modeling and statistics in traditional finance theories to avoid uncertainty, individual investors try to eliminate uncertainty by using mental shortcuts created by social media and psychological biases. The individual investor who tries to reduce uncertainty using social media is influenced by herd behavior and feels FoMO (Kaur et al., 2024; DeHart et al., 2016).

Impulsiveness is another factor that causes investors to act rashly. In addition, the effects of impulsivity on financial behavior, purchasing decisions, financial risk appetite and investment preferences are among the topics studied in the literature (Lai, 2010; Chhabra, 2018; Lučić et al., 2021). According to Whiteside and Lynam (2001), impulsiveness is a behavior in which the thoughtful and deliberate evaluation of alternative information and choices is prevented, and the decision-making process occurs quickly and abruptly. Although the developments in financial technology enable individuals to use mobile applications easily, they may cause individuals with insufficient financial knowledge and skills to act impulsively by creating positive/negative emotions (Whiteside and Lynam, 2001; Beatty and Ferrell, 1998).

2. BEHAVIOR OF INDIVIDUAL INVESTORS

Individuals generally invest the remaining income, which we refer to as savings, after meeting their basic needs and other expenditures to fulfill different objectives. Investment can be defined as growing a certain amount of money saved from the income of individuals or institutions by utilizing various instruments or at least protecting the amount they have in inflationary environments. In other words, investment can be defined as the purchase of financial (stocks, bonds, bills, mutual funds, etc.) or non-financial instruments (real estate, vehicles, education, etc.) and holding them for a certain period per their objectives.

The decision on how and into which investment instruments individuals will convert their savings varies from person to person and is influenced by several internal and external factors. These factors cause individuals' investment preferences and expectations of investment to differ. In addition to internal factors such as individuals' personalities, psychologies, and awareness levels, external factors such as family structure, beliefs, work environment, and social status are also influential in the investment decisions taken (Barber and Odean, 2013; Faff et al., 2011).

Individual investors can be classified into two categories: risk perception levels and investment methods. According to their risk perception levels, they are classified as risk-loving, risk-averse and risk-insensitive investors. In contrast, according to their investment methods, they are classified as those who invest with their knowledge and wishes in their investment decisions and those who invest under the consultancy of financial institutions and organizations that provide professional services in investment (Afsar, 2020; Tavor, 2019). Regardless of how they are made, individuals' investment decisions about the future definitely have a financial dimension. For this reason, the financial decisions taken by individuals can sometimes make them happy and sometimes cause pain and sadness. The process of allocating savings to which investment areas in the light of which alternatives and criteria constitute the most important stage of financial decision-making. For this reason, many studies in the field of behavioral finance have tried to explain what influences individual investors in their financial decisions or which situations are effective in financial decisions (Aren, 2019; Hoffman and Shefrin, 2014; Barber and Odean, 2013; Saraç and Kahyaoğlu, 2011; Nicolosi et al., 2009; Baker and Haslem, 1973).

Individuals' decision-making processes are not always rational and are influenced by many psychological, cognitive and social tendencies. For this reason, many studies have been conducted in the field of behavioral finance to determine the factors affecting the investment decisions of investors, and these studies often focus on cognitive tendencies, emotional tendencies and social behaviors in decision-making processes. Some

studies in behavioral finance reveal the importance of behavioral tendencies and their impact on investors (Koole and Rothermund, 2019). In the research on the separation of dispositions into cognitive and emotional, it has been stated that issues such as age, happiness, sociability and health are affected by cognitive and emotional dispositions, and prominent dispositions such as anchoring, overconfidence, and regret avoidance have effects on decision-making and positioning against risk. In addition, in other studies conducted in this field, it has been stated that there is a relationship between individuals' risk aversion levels, financial knowledge levels, demographic characteristics, financial tendencies and individual investment decisions and that individuals make investment decisions under the influence of at least one psychological tendency (Baker and Haslem, 1973; Nicolosi et al., 2009; Saraç and Kahyaoğlu, 2011; Barber and Odean, 2013; Hoffman and Shefrin, 2014; Aren, 2019; Sever et al.; 2020).

3. FEAR OF MISSING OUT (FoMO)

Individuals are inherently interested in what others do and want to stay connected to these experiences (Przybylski et al., 2013). FoMO presents itself as a negative state typically associated with underlying psychosocial needs and deficits when this connection is broken or unclear. Previous research has described FoMO as mostly related to psychological anxiety and obsessive symptoms, which are then shown to lead to excessive, compulsive or impulsive behaviors (Carson, 2017). FoMO, a psychological condition, has become more visible with the impact of digitalization and has been observed to affect individuals in many different areas and investment behavior (Sunny, 2020; Varga, 2016). FoMO, which is known to be particularly effective among non-professional investors, causes individuals to be interested in the investment decisions of others, to envy their gains, and to trade in the relevant markets to not be deprived of these gains (Hershfield, 2020). This situation causes individuals to invest without much knowledge for fear of missing out on the favorable investment climate in the relevant markets. New media tools, which have increased with the use of mobile devices, give individual investors a chance to copy the decisions of other investors (Chaitanya and Nordin, 2021). Accessing other investors' investment information in real-time leads investors to overbuy without sufficient investment information (Shiva et al., 2020) and feel like they are missing out on investment developments if they are not constantly connected (Proell et al., 2020). In terms of affecting investor behavior, FoMO can influence the financial investment decisions of individuals, leading to herding behavior among individuals in some markets (Gupta and Shrivastava, 2021), which may even cause prices to fluctuate more than they should (Hershfield, 2020).

In this study, based on the idea that financial emotions such as fear, gain, loss and missing out on social media and daily life affect the behavior of the individual investor, the concept of FoMO is considered a psychological state that causes the individual to make an investment decision and the fear of missing out by feeling that other people have gained more as a result of different investment decisions made by other people, or the anxiety caused by the fear of falling behind (delay) from an investment decision that they think is important. Therefore, considering that FoMO affects investor behavior, its effects on investment decisions were investigated by considering it together with uncertainty avoidance and impulsiveness.

4. UNCERTAINTY AVOIDANCE

Emotions play an active role in the decision-making process of individuals. Emotional factors are also known to impact investor behavior, and this study is based on uncertainty avoidance, one of Hirshleifer's (2001) classifications of emotions. Uncertainty avoidance has been defined as a "the extent to which the member of a culture feels threatened by ambiguous or unknown situations" (Hofstede, 1991; Hofstede et al., 2010).

Uncertainty usually arises when the probabilities of situations that will occur are unknown. Decision-making under uncertainty becomes more difficult and complex for individuals than ever before. In the case of complete uncertainty, even known decision-making techniques may become unusable. The most important difference between decision-making under risk and uncertainty is that the probabilities of events occurring under uncertainty are unknown. Therefore, uncertainty avoidance can be explained as a situation that leads people to reduce uncertainty rather than reducing risk (Sıgır and Tıgılı, 2006). In case of experiencing problems in reducing uncertainty and not being able to cope with it, uncertainty avoidance emerges in individuals (Hosftede, 1991; Rieger, 2022; Zaman and Abbasi, 2020).

The fact that individuals faced with uncertain situations differ from each other in terms of their understanding of uncertainty, their ability to cope with uncertainty, and the reactions they show in uncertain situations reveals their level of uncertainty avoidance. Individuals' uncertainty avoidance level varies from culture to culture and country to country (Hosftede, 1991). In societies where uncertainty avoidance is high,

individuals are concerned about unstructured and risky situations, and with this concern, situations such as stress, irritability and aggression are more common (Robbins, 1998). In societies where uncertainty avoidance is low, individuals are more willing to take risks and tolerate uncertainty more easily; they attach more importance to information and can make healthier decisions by exhibiting appropriate and flexible behaviors under this information load (Whetton and Cameron, 1995).

Uncertainty avoidance comes to the forefront in financial decisions as in many situations encountered in daily life. When the studies in the literature are examined, it is observed that uncertainty avoidance is related to important issues in the field of finance, such as individuals' financial participation levels, financial decision-making processes, choice of financial assets, frequency of investment, use of new generation (digital) financial services and products, risk-taking levels, and openness to innovations and has been the subject of many academic studies in this field (Shane, 1995; Breuer et al., 2014; Hens and Schindler, 2020; Tran, 2020; Al-Okaily et al., 2020; Rieger, 2022).

In financial decision-making, emotions of fear, panic and greed can impact investor behavior. These emotions gain more importance, especially in situations involving risk and uncertainty (Aggarwal and Goodell, 2014; Szyszka, 2010; Rieger, 2022), and investors instinctively try to avoid risk, take known risks, and sometimes act irrationally. From this perspective, uncertainty is an important factor affecting individuals' financial investment decisions. Investors experience uncertainty in their investment decisions when they do not have a clear idea of future events. This situation may affect investors' risk tolerance and investment behavior or lead them to less risky instruments. To avoid uncertainty and reduce fear in the financial investment process, investors invest in assets such as treasury bills, bonds and gold, which offer fixed returns, and withdraw their investments from riskier markets (Bayar and Kılıç, 2012; Çetiner et al, 2019). For this reason, knowing the attitudes and behaviors of investors in the face of uncertainty and their uncertainty avoidance levels is of great importance in contributing to the finance literature.

5. IMPULSIVENESS

Impulsiveness is a natural behavior controlled by brain mechanisms essential for all species' survival. Impulsiveness has been defined as a "a predisposition toward rapid, unplanned reactions to internal or external stimuli without regard to the negative consequences of these reactions to the impulsive individuals or others" (Moeller et al., 2001). In another definition, impulsiveness is spontaneous behaviors at the center of many aspects of human cognition and behavior, triggered by internal or external stimuli and incompatible with long-term goals (Stahl et al., 2014). Impulsiveness is known as the inability to resist the current situation to the end, urgency, inevitability, quick decision-making, risk-taking, reliance on luck, loss of attention and control, lack of premeditation, and thrill-seeking (Barrat, 1959; Stanford et al., 2009; Sarısoy et al., 2013).

The impulsive buying decision process is an impulse based on being motivated by immediate reward. Therefore, impulsive buying is often associated with poor planning and deliberation (deMeza et al., 2008; Rook and Fisher, 1995; Lučić et al., 2021). When making a purchase, the individual triggers the affective and cognitive aspects of the decision-making process (de Meza et al., 2008). While the affective aspect is activated by fear, excitement and satisfaction, the cognitive aspect is related to the lack of deliberation and planning (Verplanken and Herabadi, 2001; Lučić et al., 2021).

Studies indicate that impulsive buying behavior is rapidly increasing throughout society and is very important in total purchasing decisions (Boz and Koc, 2018). Financial investment decisions are generally expected to make rational decisions, a specific plan, and act rationally rather than impulsively since the perceived financial risk is considered high. However, it is mentioned that impulsive behavior in investment decisions can have both positive and negative effects and is often assumed to be a double-edged sword. If an investor is not impulsive, he or she may find that hesitation or inaction may become necessary after a while (Hemrajani et al., 2021). In addition, irrational and emotion-based buying behavior (impulsive) can lead to irresponsible financial behavior (Jelihovschi et al., 2018; Barbic et al., 2019; Lučić et al., 2021).

Impulsiveness has been researched in a wide range of areas, from education to employment behaviors, from purchasing behaviors to financial decisions, and from addiction to health problems (Everton et al., 2005; Diamantopoulou et al., 2007; Stanford et al., 2009; Ozen and Topcu, 2017; Boz and Koc, 2018). In addition, studies show that impulsiveness, which is thought to be closely related to behavioral addictions, is a determinant of technology addiction, especially of frequent smartphone use addiction (Zhang et al., 2015; Ozen and Topcu, 2017). Smartphones, which are widely used today, are frequently used for many purposes, such as financial instruments and banking services. In this respect, impulsiveness, which has been shown to affect both purchasing behaviors and smartphone addiction, is thought to affect the investment preferences of individual investors and is examined in this aspect in this study.

6. MATERIALS AND METHODS

6.1. Participants

This study includes people who have financial income, make individual investments (at least one) and reside in Turkey over the age of 18; It was conducted to reveal the relationships between financial investment preference and frequency and uncertainty avoidance, impulsive acting and FoMO levels. Ethics committee permission was received to conduct the study (Eskisehir Technical University Social and Human Sciences Scientific Research and Publication Ethics Board, E-87914409-050.03.04-19717-2021), information was given about the participation of people who made financial investments in the description section of the study, and participants participated in the study voluntarily. A question was added to the study as a control question. In the study, 976 questionnaires were returned and the questionnaires of people who answered the control question incorrectly and stated that they did not invest were removed from the data set and 765 valid data were analyzed.

6.2. Variables and Measurement Instrument

The questionnaire used in the research consists of five sections. The first part consists of six investment options that reveal the frequency of financial investment preferences of the participants. The second part is a seven-item scale that reveals the participants' uncertainty avoidance. These scale statements are taken from the study conducted by Jung and Kellaris (2004). In the third section, Barratt's impulsiveness scale, which is most frequently used in the literature, was used to reveal the participants' impulsiveness structure and impulsiveness levels. These scale statements were taken from the study conducted by Spinella (2007). In the fourth section, to reveal the participants' fear of missing out (FoMO) level, scale statements consisting of ten statements used in Przybylski et al. (2013) studies. A five-point Likert-type scale was used to evaluate all scale statements. In the last part of the questionnaire, there are questions to reveal the participants' demographic characteristics and social media usage habits.

6.3. Data Analysis

Before starting the analysis, it was checked whether the data were entered correctly and completely and whether the expressions related to the scales showed a normal distribution. For the normal distribution analysis, kurtosis and skewness values were checked, and it was determined that the values had normal distribution values (the highest values were skewness: 1.970; kurtosis: 2.970). In the study, factor analysis was performed on the participants' investment preferences, uncertainty avoidance, impulsivity and FoMO scales, and the Cronbach Alpha values of the factors were examined. The Cronbach Alpha values of uncertainty avoidance .69, impulsiveness .71, and FoMO .89, respectively. Considering these values, it can be said that the internal consistency of the factors is good.

After the factor analysis, cluster analysis was applied for each scale. Correspondence analyses were conducted to reveal whether the participants differed according to their levels of financial investment, uncertainty avoidance, impulsivity and FoMO.

7. FINDINGS AND RESULTS

The demographic characteristics, amount of savings and frequency of investment choices of the participants are shown in table 1. Most of the respondents are male (67.3%), married (60.3%), between the ages of 26-35 (29.3%), civil servants etc. (employees with fixed income) (27.7%) and finally have an income of 701 \$-1,400 \$ (45.8%).

Table 1. Characteristics of Sample

Features		Number	Percentage	Features	Number	Percentage	
Gender	Female	250	32.7	Job	Executive	89	11.6
	Male	515	67.3		Employee	61	8.0
Marital Status	Married	461	60.3		Employer	35	4.6
	Single	304	39.7		Officer	212	27.7
Age	18 -25	133	17.4		Craftsman/Self-employed	94	12.3
	26-35	224	29.3		Retired	114	14.9
	36-45	151	19.7	Other	160	20.9	
	46 -55	198	25.9	Income	700 \$ and<	152	19.9
	56 and >	59	7.7		701 \$-1,400 \$	350	45.8
			1,401 \$-2,100 \$		161	21.0	
				2,101 \$- and>	102	13.3	

When the amount of savings of the participants in table 2 is evaluated, it is seen that the vast majority (55.8%) save 350 \$ or less per month and 28.6% save between 351 \$-700 \$. At the time of data collection, the net minimum wage in the country was approximately 385 \$.

Table 2. Monthly Savings Amount

Features	F	%
Savings Amount	350 \$ and <	55.8
	351 \$-700 \$	28.6
	701 \$-1,050 \$	8.6
	1,051 \$ and >	6.9

7.1. Factor and Cluster Analysis of Financial Investment Instruments

Factor analysis was applied to the savings scale statements. given in table 3. Three factors emerged because of the factor analysis. These three factors explain 73.491% of the total variance.

Table 3. Factor Analysis of Financial Investment Instruments

	Factor Loading	Eigenvalue	Variance Explained%
Factor 1 Fixed Income Securities (FIS)			
Deposit Account	.588		
Repo (Repurchase Agreement)	.874	2.035	33.910
Bills or Bonds	.850		
Factor 2 Currency and Precious Metals (CPM)			
Foreign Currency (USD, Euro, or other foreign currencies)	.760		
Gold	.810	1.249	20.822
Factor 3 Variable Income Securities (VIS)			
Stock	.804	1.126	18.760
Total Explained Variance: 73.491			
Reliability of All Scale Expressions: 0.57			

The first factor is Fixed Income Securities (FIS) and consists of time deposits/interest, repo, and treasury bills/bonds. The variance of this factor is 33.910%. The second factor is Currency, and Precious Metals (CPM), which consists of foreign exchange and gold, and its explanatory power is 20.822%. The third and last factor, Variable Income Securities (VIS), comprises equity investments. The explanatory power of the third factor is 18.760%. The reliability of the five savings options is .57.

The K-means cluster technique divided investment/saving behavior factors into three clusters, low, medium and high. The clustering analysis determined the highest and lowest scores by considering the number of items in each factor. Also, as a result of the clustering analysis, the average score of each cluster and the number of participants in each cluster were determined.

Table 4. Cluster Analysis of Financial Investment Instruments

		n	%	Mean
FIS	Cluster 1 High Level	91	11.9	12.18
	Cluster 2 Medium Level	302	39.5	6.34
	Cluster 3 Low Level	372	48.6	2.77
CPM	Cluster 1 High Level	233	30.5	8.79
	Cluster 2 Medium Level	364	47.5	6.07
	Cluster 3 Low Level	168	22.0	3.27
VIS	Cluster 1 High Level	198	25.9	4.68
	Cluster 2 Medium Level	207	27.1	2.56
	Cluster 3 Low Level	360	47.0	.23

Table 4 above shows the cluster analysis results of the investment factors. The highest point of the FIS savings factor is 15, and the lowest is zero. As a result of the analysis, 91 participants were identified as high, 302 as medium and 372 as low. When we look at the average score of the participants, the high level is 12.18, the medium level is 6.34, and the low-level score is 2.77.

The highest point of the CPM factor is 10, and the lowest point is zero. As a result of the analysis, 233 participants were identified as high level, 364 as medium level and 168 as low level. When we look at the average score of the participants, the high level is 8.79, the medium level is 6.07, and the low-level score is 3.27.

The highest point of the VIS factor is 5, and the lowest is zero. As a result of the analysis, 198 participants were determined as high level, 207 participants as medium level and 360 participants as low level. When we look at the participants' average, the high-level score is 4.68, the medium-level score is 2.56, and the low-level score is 0.23. When we make a general evaluation, the highest cluster among the three factors is in the variable low-risk return cluster, and the lowest is in the fixed low-risk return cluster.

7.2. Factor and Cluster Analysis of Uncertainty Avoidance

As seen in table 5, the seven statements in the uncertainty avoidance scale were factor analyzed and grouped under a single dimension. The explanatory value of the scale was found to be 36,34%, and the reliability was found to be .69.

Table 5. Factor Analysis of Uncertainty Avoidance: Scale Items, Factor Loading, and Reliability

	Factor Loading	Eigenvalue	Variance Explained %	Cronbach α
I prefer structured situations to unstructured situations.	.437			
I prefer specific instructions to broad guidelines.	.514			
I tend to get anxious easily when I don't know an outcome	.708			
I feel stressful when I cannot predict consequences	.743	2.544	36.34	.69
I would not take risks when an outcome cannot be predicted	.597			
I believe that rules should not be broken for mere pragmatic reasons	.419			
I don't like ambiguous situations.	.709			

Cluster analysis was applied to determine the uncertainty avoidance levels of the participants, and three levels were determined. The highest score of the participants who answered uncertainty avoidance statements was 35, and the lowest was seven (7). As a result of the analysis, 355 participants were in the high, 334 in the medium and 76 in the low-level uncertainty avoidance group. The participants' mean scores were: a high level of 31.85, a medium level of 25.20, and a low-level score of 18.71 (See Table 6).

Table 6. Cluster Analysis of Uncertainty Avoidance

		n	%	Mean
Uncertainty Avoidance	Cluster 1 High Level	355	46.4	31.85
	Cluster 2 Medium Level	334	43.7	25.20
	Cluster 3 Low Level	76	9.9	18.71

7.3. Factor and Cluster Analysis of FoMO

Factor analysis was applied to ten statements of the FoMO scale, and the statement “*When I miss out on a planned get-together it bothers me*” with a factor loading below .40 was not included in the factor analysis. As a result of the factor analysis conducted with nine FoMO statements, a single factor emerged, and the explanatory value of this factor is 56%, and the reliability value is .89. For details, see table 7 below.

Table 7. Factor Analysis of FoMO: Scale Items, Factor Loading, and Reliability

	Factor Loading	Eigenvalue	Variance Explained %	Cronbach α
I fear others have more rewarding experiences than me.	.736			
I fear my friends have more rewarding experiences than me.	.796			
I get worried when I find out my friends are having fun without me.	.825			
I get anxious when I don't know what my friends are up to.	.826			
It is important that I understand my friends “in jokes”.	.757	5.037	55.96	.89
Sometimes, I wonder if I spend too much time keeping up with what is going on.	.716			
It bothers me when I miss an opportunity to meet up with friends.	.617			
When I have a good time, it is important for me to share the details online (e.g. updating status).	.757			
When I go on vacation, I continue to keep tabs on what my friends are doing.	.678			

The highest score of the participants who answered the FoMO statements was 45, and the lowest score was nine (9). One hundred eight participants felt FoMO at a high level, 323 at a medium level and 334 at a low level. Frequency, percentage and averages according to FoMO levels are shown in table 8.

Table 8. Cluster Analysis of FoMO

		n	%	Mean
Cluster of FoMO	Cluster 1 High Level	108	14.1	42.85
	Cluster 2 Medium Level	323	42.2	30.08
	Cluster 3 Low Level	334	43.7	19.13

7.4. Factor and Cluster Analysis of The Barratt Impulsiveness Scale

Factor analysis was applied to the fifteen statements of the impulsive acting scale(see table 9), and the KMO value of the scale was 0.830, and the result of Bartlett's test of sphericity was Chi-square=3327.596: p=000. These values are sufficient for factor analysis. In addition, statements with a factor loading of 0.59 and an eigenvalue higher than one were subjected to analysis. Two statements were excluded from the analysis because they did not meet these conditions (I squirm at plays or lectures and concentrate easily inverted).

Table 9. Factor Analysis of Impulsivity: Scale Items, Factor Loading, and Reliability

	Factor Loading	Eigenvalue	Variance Explained %	Cronbach α
Factor 1 Motor Impulsivity				
I act on impulse inverted	.809			
I act on the spur of the moment	.835			
I do things without thinking	.718	3.034	23.33	0.85
I say things without thinking	.667			
I buy things on impulse	.726			
Factor 2 Non-Planning				
I plan for job security inverted	.680			
I plan for the future inverted	.763			
I save regularly inverted	.591	2.649	20.376	0.75
I plan tasks carefully. inverted	.796			
I am a careful thinker inverted	.710			
Factor 3 Attention Impulsivity				
I am restless at lectures or talks	.598			
I don't pay attention	.726	1.884	14.49	0.62
Easily bored solving thought problems	.775			
Total Explained Variance: 58.206				
Reliability of All Scale Expressions 0.80				

Additionally, factor analysis revealed three factors. The first factor was motor impulsiveness, the second was non-planning, and the last was attention impulsiveness. These three factors explained 58.206% of the total variance. The Cronbach's Alpha of each factor was 0.85, 0.75 and 0.62, respectively; the internal consistency of the total scale statements was 0.80.

Cluster analysis was applied to determine the impulsiveness sub-factor levels of the participants, and three levels were determined. Motor impulsiveness has a medium level of participation, non-planning has a low level, and attention impulsiveness has a higher number of medium-level participants. Table 10 shows the details about cluster impulsiveness.

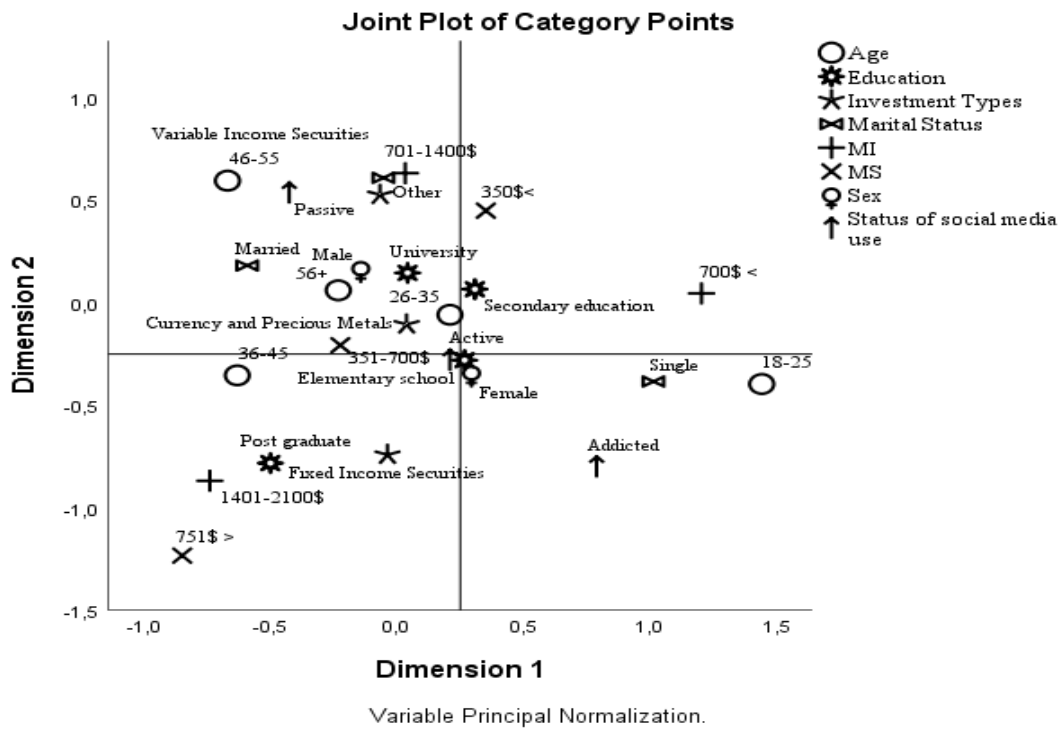
Table 10. Cluster Analysis of Impulsivity

		n	%	Mean
Motor Impulsivity	Cluster 1 High Level	90	11.8	22.06
	Cluster 2 Medium Level	492	64.3	16.09
	Cluster 3 Low Level	183	23.9	11.81
Non-planning	Cluster 1 High Level	87	11.4	15.44
	Cluster 2 Medium Level	240	31.4	11.31
	Cluster 3 Low Level	438	57.3	6.81
Attention Impulsivity	Cluster 1 High Level	100	13	13.42
	Cluster 2 Medium Level	451	59	8.69
	Cluster 3 Low Level	214	28	4.81

7.5. Investment Type and Investor Characteristics

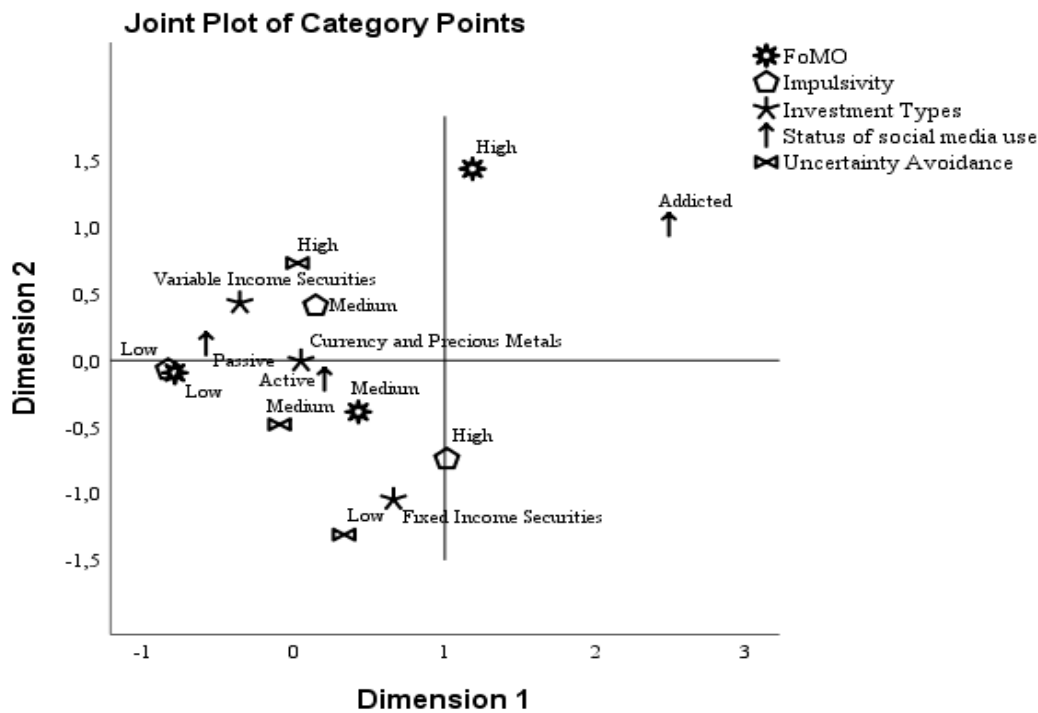
The comparisons between the participants' investment type and demographic characteristics are presented in Figure 1. As a result of correspondence analyses, it was found that marital status, age, and monthly income were weighted in the first dimension (25.22), as investment type, sex, and monthly saving. Education and status of social media use were weighted in the second dimension (19.00). The total explanatory power of the two dimensions is 44.24.

Figure 1: Investment Types with Demographic Characteristics of The Participants



The education of individual investors investing in FIS is postgraduate, 18-25, 36-45 years old, with a monthly income of \$ 1401- 2100, monthly savings of \$ 751 and above, and female participants. In addition, the social media usage of the participants who invest in FIS is at the addicted level. Individual investors investing in CPM are secondary education and university graduates between the ages of 26-35 and 56 and above, male, married, with a monthly income of \$ 1401-2100 and monthly savings of \$ 351-700. Social media usage is active. Individual investors investing in VIS are married, male, 46-55 years old, university graduates with an income of \$701-1400 and monthly savings of \$350 or less. This group uses social media passively. In addition, single participants aged 18-25 with an income of less than 700 dollars do not have a significant tendency to save. It can be said that this group has no investment status and no such concern due to the low income of this group in these periods and the fact that they are recent graduates or early in their professional life in terms of age.

Figure 2: The Relationship between the Investment Type and the FoMO, Uncertainty Avoidance and Impulsivity Levels of the Participants



Variable Principal Normalization.

The relationship between investment type and participants' FoMO, uncertainty avoidance and general impulsiveness levels is shown in Figure 2. As a result of correspondence analyses, it was found that the status of social media use, FoMO and impulsiveness were weighted in the first dimension (30.124%); uncertainty avoidance and investment types were weighted in the second dimension (26.225%). The total explanatory power of the two dimensions is 56.271%.

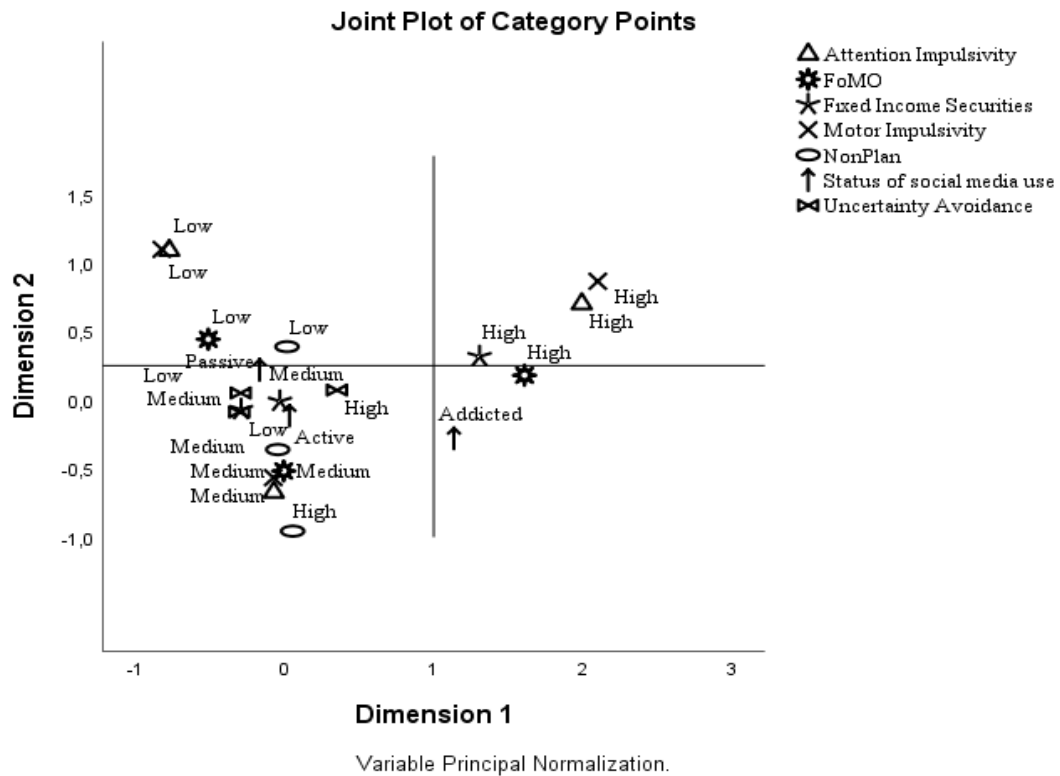
Individual investors who invest in FIS have low levels of uncertainty avoidance, high levels of impulsiveness, and moderate levels of FoMO sentiment. The social media usage of the participants who invested in this group was active. Individual investors who invest in VIS have high uncertainty avoidance, moderate impulsiveness and moderate FoMO sentiment. The social media use of the participants who invested in this group was found to be passive. Individual investors who invest in CPM have moderate uncertainty avoidance, low and moderate impulsiveness, and moderate FoMO sentiment. The social media use of the participants who invested in this group was found to be active and passive. In addition, participants with a high sense of FoMO and addicted social media usage status formed a separate section.

7.6. Frequency of Investment Type and Participants' FoMO, Uncertainty Avoidance and Sub-Dimension of Impulsivity Levels

7.6.1. Fixed Income Securities

As a result of the correspondence analyses (in figure 3) conducted to reveal the relationship between the variables that may affect the investment of FIS investors with a propensity to save and the variables that may affect the investment, it was found that social media use, FoMO, uncertainty avoidance, motor and attention impulsiveness variables were weighted in the first dimension (32.273%). The nonplan variable was weighted in the second dimension (24.684%). The total explanatory power of the two dimensions is 57.100%. Individual investors with high levels of FIS use social media in a dependent manner and have high levels of FoMO, motor and attention impulsiveness; those with medium and low levels of FIS have high and medium levels of uncertainty avoidance, low levels of non-planning (high levels of planning) and passive and active social media usage status, while the remaining variables are at medium levels. It is observed that low-level investors have medium and low levels of uncertainty avoidance and low levels of FoMO. In addition, it is seen that low-level investors do not plan (non-planning) at medium and high levels. Low levels of attention and motor impulsiveness are far from the origin.

Figure 3: The FoMO, Uncertainty Avoidance, and Sub-impulsivity Dimension of Participants Investing in Fixed Income Securities



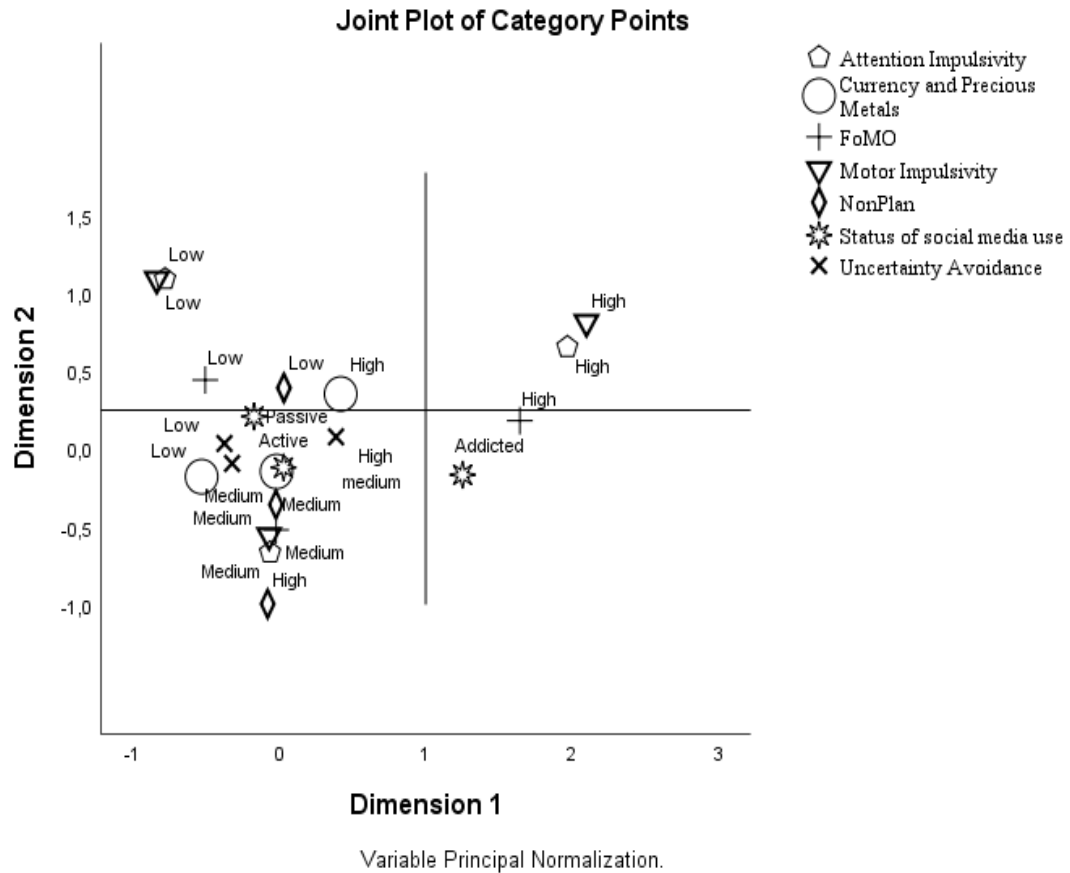
7.6.2. Currency and Precious Metals

As a result of the correspondence analyses (in figure 4) conducted to reveal the relationship between the variables that may affect the investment decisions of individual investors using CPM investment instruments, it was found that social media usage, FoMO, uncertainty avoidance, motor and attention impulsiveness variables were weighted in the first dimension (31.223%). Non-plan variable was weighted in the second dimension (24.862%). The total explanatory power of the two dimensions is 56.135%.

Individual investors with a high level of participation in CPM investment instruments have high uncertainty avoidance, low lack of planning, passive use of social media and low FoMO. Those with a medium level of investment frequency have a medium level of attention and motor impulsiveness, a medium and high level of non-planning, active use of social media and a medium level of FoMO. Low-level investors have medium and low uncertainty avoidance and low FoMO levels.

In addition, those who invest in CPM investment instruments at low levels have moderate levels of non-planning and uncertainty avoidance and moderate levels of motor and attention impulsiveness. It can be said that their social media use is active and passive. In addition, participants who are addicted to social media have a high sense of FoMO and motor attention impulsiveness (they are far from investment frequency).

Figure 4: The FoMO, Uncertainty Avoidance, and Sub-impulsivity Dimension of Participants Investing in Currency and Precious Metals



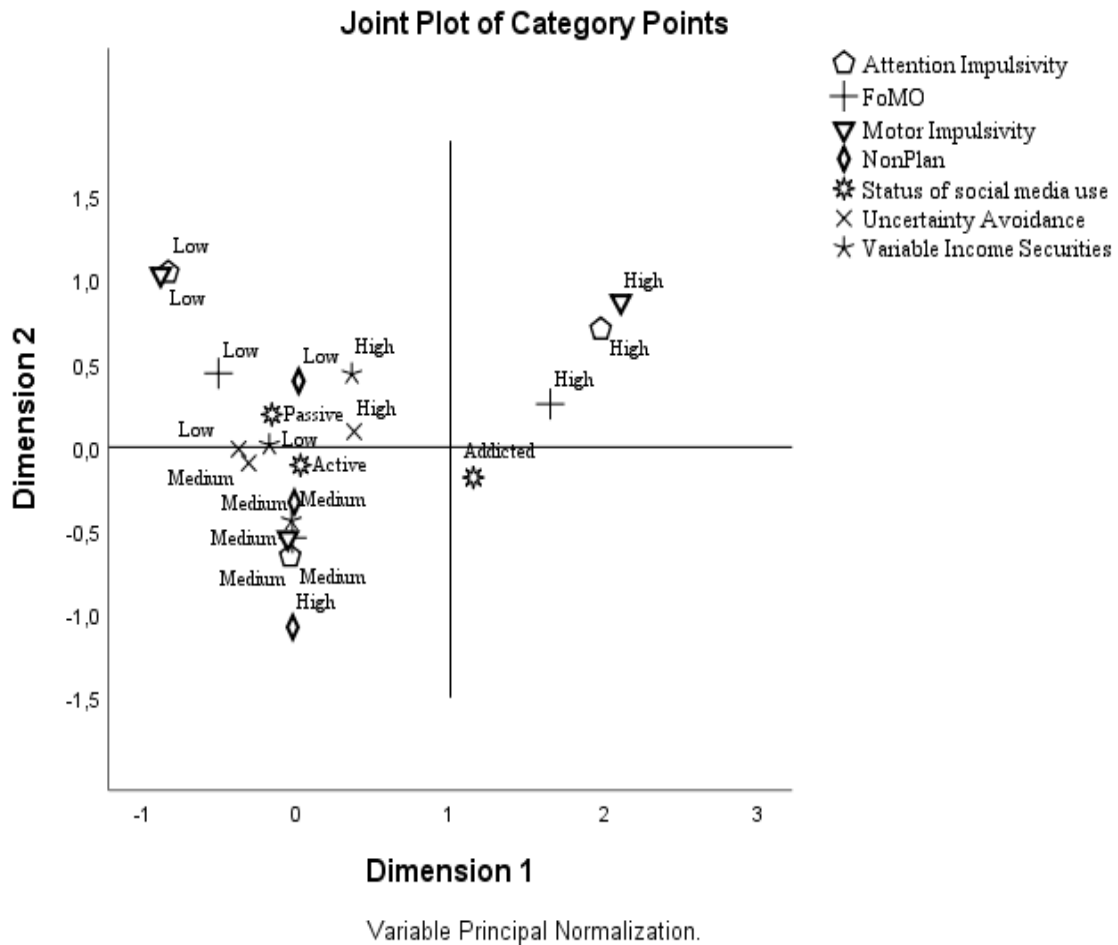
7.6.3 Variable Income Securities

As a result of the correspondence analyses (in figure 5) conducted to reveal the relationship between the investment levels of individual investors with VIS participation and the variables that may affect their investment decisions, it was found that FoMO, uncertainty avoidance, motor and attention impulsiveness and status of social media use variables were weighted in the first dimension (30.644%). Non-planning and VIS levels were weighted in the second dimension (25.230%). The total explanatory power of the two dimensions is 55.874%.

Individual investors with high participation in VIS instruments have high uncertainty avoidance, low lack of planning, passive use of social media and low FoMO; individual investors with medium participation have medium attention impulsiveness, high and medium lack of planning, high and medium motor impulsiveness, uncertainty avoidance and medium FoMO. This group of investors actively uses social media. Low-level investors have medium and low levels of uncertainty avoidance, low FoMO levels, and medium levels of planning and are passive social media users.

We can also say that individual investors with high FoMO levels are dependent on social media users and have high levels of motor impulsiveness and attention impulsiveness. Participants addicted to social media have high FoMO, high motor attention impulsiveness and lack investment frequency.

Figure 5: The FoMO, Uncertainty Avoidance, and Sub-impulsivity Dimension of Participants Investing in Variable Income Securities



DISCUSSION AND CONCLUSION

A review of studies on the factors affecting the financial investment decisions of individual savers reveals that demographic characteristics of individuals, such as gender, age, education, and marital status, as well as their emotional and cognitive states, have an impact on their investment preferences and investment frequency (Grable and Roszkowski, 2007; Beckmann and Menkhoff, 2008; Faff et al., 2011; Heo et al., 2016; Grable et al., 2020). Studies indicate that women, in particular, tend to exhibit a risk-averse attitude and prefer low-risk investment instruments (Beckmann and Menkhoff, 2008; Nee-Pakatan, 2010; Faff et al., M. (2011). These attitudes and behaviors of women tend to choose more conservative investments in their financial investment preferences, often leading to lower wealth accumulation over their lifetime compared to men, which is defined as the "gender asset gap" by Lyons et al. (2008).

When the findings of this study are analyzed in terms of the demographic characteristics of the investors and the type of investment they have made, it is seen that the individual investors who invest in FIS have high levels of education, high levels of dependent social media usage and are mostly female investors. In some previous studies, we have stated that female investors tend to save more and avoid risk. In addition, it has been stated that the greater the responsibility assumed, such as marital status, education, age, and number of dependents, the smaller the risk tolerance level of individuals, and therefore they tend towards instruments with low risk and fixed income (Beckmann and Menkhoff, 2008; Neelakantan, 2010; Faff et al., M. (2011). When the results obtained from our study are analyzed, it is seen that similar to previous studies, those who prefer fixed investment instruments have high levels of education, middle-aged and mostly female participants.

In the study, individual investors who invest in VIS are married, male (46-55 years old), and active users of social media, while individual investors who invest in CPM are secondary education and university graduates, 26-35 and 56 and above, male, married, and passive users of social media. Heo et al. (2016) found that men are more likely to own stocks than women and that those who are married and those who have a joint

living arrangement tend to own more stocks than those who are single, divorced/separated or widowed. When the results obtained in the study are analyzed, it is seen that similar findings are obtained with the study conducted by Heo et al. 2016, since those who invest in VIS with stocks and CPM with variable returns are mostly men and married people.

This shows that women's and men's risk appetite, their reactions to cognitive and emotional events, and their social media usage habits differ in their financial investment preferences and affect their investment type preferences. In this respect, while the results of the study are consistent with the results obtained from the studies conducted by Beckmann and Menkhoff, 2008; Neelakantan, 2010; Faff, Hallahan and Kenzie, 2011; Heo et al., 2016; Grable et al. 2020, the results of the study differ from the result of Nosita et al., 2020, which found that gender and age were statistically insignificant in defining risk tolerance. This situation can be explained by one of the basic assumptions of behavioral finance: individuals do not always behave rationally. They may differ with the effect of cognitive and emotional moods. In addition, it can be said that factors such as cultural differences, financial literacy level of individuals, financial participation level and financial development levels of countries are effective in obtaining similar and different results from studies conducted in different countries.

In addition, the saving tendencies of the participants in the study, who are between the ages of 18-25, single and have an income of less than 700 dollars, are not significant. It can be said that this group does not have investment status and such concerns due to their low income in these periods and the fact that they are recent graduates or at the beginning of their professional life. The fact that the social media usage levels of the participants in this age group are dependent and high is consistent with previous studies (Przybylski et al., 2013; Xuan and Amat, 2020; Li et al., 2021).

For individual investors, investing is a process full of risks and uncertainties. Therefore, investors should consider many factors when making investment decisions. However, investors may sometimes be influenced by emotional factors such as FoMO, impulsiveness and uncertainty avoidance and may make emotional decisions instead of rational ones. In this study, by examining the investment preferences and investment frequency of individual investors separately, it was concluded that investors who invest in the same type of investment exhibit different behaviors according to their investment frequency. This shows that investors who invest in the same investment instruments are under different levels of FoMO, impulsiveness, uncertainty avoidance and other emotional and cognitive influences. In this respect, it shows that cognitive and emotional states significantly shape investor behavior in financial markets. However, it is also possible that the participants' investment habits or the emotional and cognitive reactions they were exposed to during the COVID-19 pandemic (the study data were collected during the pandemic period) may have different results from the previous periods. Some studies in this field reveal that the investment decisions and behaviors of individual investors differ during the pandemic period or are directly affected by pandemic conditions (Wang et al., 2022; Estrada et al., 2021; Vasileiou, 2020; Bansal, 2020). In this study, individual investors investing in FIS have low uncertainty avoidance, high impulsiveness and moderate FoMO sentiment.

In contrast, individual investors investing in VIS have high uncertainty avoidance, moderate impulsiveness and moderate FoMO sentiment. However, under normal circumstances, investors who prefer fixed-income investment instruments would be expected to have higher levels of uncertainty and risk aversion, while individual investors who invest in VIS would be expected to have lower levels of uncertainty aversion and a higher appetite for risk (Grable et al., 2020; Anbar and Eker, 2009; Grable and Lytton, 1998). Some studies in this field (Bayar and Kılıç, 2012; Çetiner et al., 2019; Bansal, 2020) have revealed that investors tend to withdraw their investments from riskier markets by investing in assets such as treasury bills, bonds and gold, which they perceive as safe despite low earnings and fixed returns, in order to avoid uncertainty and reduce fear in financial investment processes. The results obtained from our study differ from these studies. This situation can be explained by the fact that individuals are more affected by emotional states such as FoMO and impulsiveness in more uncertain situations such as COVID-19, and another factor can be expressed as the level of financial literacy and the frequency of investment participation. Agnew and Harrison (2017) stated in their study that men with high levels of impulsiveness tend to take more risks and that with the effect of impulsiveness, such investors may invest without fully analyzing the situation. From this point of view, it shows that individuals act in the opposite direction to what is expected under uncertain situations (pandemic, etc.) with emotional and cognitive-emotional states other than rational expectations and financial motives when choosing investment instruments. In addition, the fact that the uncertainty avoidance levels of individual investors who invest in CPM are moderate, impulsiveness is low and moderate, and the feeling of FOMO is moderate is in line with other studies (Bayar and Kılıç, 2012; Çetiner et al., 2019; Bansal, 2020), in other words, it shows that those who prefer traditional investment instruments still act in the same direction.

When we look at the frequency of the investment type of those who invest in the same investment instruments and the FoMO, uncertainty avoidance and sub-dimension of impulsiveness levels of the participants, we see that individual investors who invest in FIS at high levels use social media in a dependent manner and have high FoMO, Motor and Attention Impulsiveness levels. This situation reveals that there is a relationship between the desire of high-level investors to constantly follow investment news, especially with their mobile devices, social media and other media tools, and the effect of this situation and high FoMO levels, as in previous studies (Shiva et al., 2020; Tomczyka and Lizdeb, 2018; Kristoufek, 2013). Those who invest in the same investment instruments at a medium level have high and medium levels of uncertainty avoidance, low levels of lack of planning, and medium levels of the remaining variables. On the other hand, low-level investors have medium and low levels of uncertainty avoidance and low levels of FoMO. In addition, it is seen that those who invest at low levels do not plan at medium and high levels. As can be understood from this, it is seen that individuals do not avoid uncertainty and act impulsively when social media and FoMO levels are high. This is consistent with the results of Li et al. (2021) that impulsiveness partially mediates the relationship between FoMO and gaming disorder and that high FoMO levels among individuals affect executive functions leading to more impulsiveness. As it is known, FIS investment instruments consist of financial instruments with fixed returns and lower risk levels than other investment instruments. While the high uncertainty avoidance and planned behavior of high and medium-level investors are close to the behavior of individual investors who prefer such investment instruments, their high FoMO levels can be explained by their addiction to social media and mobile devices.

Individual investors who invest in CPM investment instruments at high levels have high uncertainty avoidance, low lack of planning, passive use of social media, and high and medium FoMO levels. Those with a medium level of investment frequency have a medium level of Motor and Attention Impulsiveness, a high level of non-planning, an active use of social media, and a medium level of FoMO. Low-level investors have medium and low levels of uncertainty avoidance and FoMO. In addition, those who invest in CPM investment instruments at low levels have moderate levels of not planning and uncertainty avoidance and moderate levels of motor and attention impulsiveness.

Studies have shown that individual investors see precious metals such as gold and silver and reserve currencies such as the dollar and the euro as safe havens, especially during pandemics and periods of deterioration in macroeconomic outlook (Atak and Kutukız, 2021). The fact that those who invest in such investment instruments more frequently have high levels of uncertainty avoidance and low levels of non-planning is consistent with the results of some previous studies (Bansal, 2020; Gülhan, 2020). In addition, high levels of FoMO coincide with the desire to constantly monitor the price of the financial instruments they invest in and their desire to stay connected to smart devices. In fact, in previous studies, it has been stated that the desire of individuals with high FoMo levels to stay constantly connected with their smart devices and to check them frequently has increased the commitment to social media and mobile devices and started to direct individuals' activities such as communication, receiving news, following news, purchasing and investing (Shiva et al., 2020; Tomczyka and Lizdeb, 2018; Kristoufek, 2013).

Individual investors with high levels of investment in VIS instruments have high levels of uncertainty avoidance, low levels of non-planning, low levels of social media use and low levels of FoMO. Grable and Lytton (1998) and Anbar and Eker (2009) reported that individuals who invest in VIS have higher risk tolerance and lower uncertainty avoidance. The result obtained from our study differs from these studies. This difference can be explained by the frequency of investment, financial literacy and other demographic characteristics of individuals who invest in stocks, as well as the fact that more uncertain situations, such as the COVID-19 pandemic, have an impact on the investment behavior of investors (Wang et al., 2022; Estrada et al., 2021; Vasileiou, 2020; Bansal, 2020).

Those who invest in VIS instruments at medium and low levels have medium and low levels of uncertainty avoidance and FoMO. Güngör et al. (2022) showed that those who invest with low levels of data and information succumb to FoMO and may behave irrationally. However, their decisions may be rational when they are provided with more data and given more opportunities. This can be used in our study to explain that those who invest in VIS instruments at high levels act with more information and data and have a low FoMo level and that the FoMo level increases with medium and low levels of investment. It can be said that similar findings were obtained with the study conducted by Güngör et al. (2020). In addition, it was also observed that individual investors with high FoMO levels among those who invested in VIS were dependent social media users and had high levels of motor impulsiveness and attention impulsiveness. In this case, we can say that being addicted to social media causes or mediates the increase in FoMO level and the increase in FoMO level causes or mediates the increase in impulsiveness (Li et al., 2021).

Unlike previous studies, this study reveals the relationship between FoMO, uncertainty avoidance and general impulsiveness levels of individual investors by considering their investment types and investment frequencies separately. Especially in recent years, the use of social media, the prominence of financial technology companies and the increase in financial inclusion have made the concepts of FoMO, uncertainty avoidance and impulsiveness more important for the finance literature. In this study, it was observed that individual investors' demographic characteristics and investment type preferences have an impact on their FoMO, uncertainty avoidance and impulsive behavior tendencies.

The period when the study data was collected was realized after the first year of the COVID-19 pandemic. When the literature is examined, some studies reveal that the pandemic has an impact on the investment decisions of individual investors, especially during the pandemic period (Vasileiou, 2020; Bansal, 2020; Estrada et al., 2021; Wang et al., 2022). For this reason, it will be very useful for policymakers and decision-makers to evaluate the study results in this context and compare them with the results of the studies to be conducted after the pandemic and its effects are eliminated. Future studies to be conducted in different countries and ordinary periods will contribute to comparing the results obtained in the study and to a more accurate understanding of the behavior of individual investors by making healthier interpretations.

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