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Exploring the Effect of Personality and Demographic Characteristics on the Risk-Taking Behavior of Investors

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Abstract
Personality is one of the most important study structures in organizational behavior that can play an important role in predicting human behavior. To describe the differences in personality, emotional, and social behavior, researchers have proposed the theory of five personality factors, known as the Big Five. One of the decisions investors take is to allocate wealth to financial and non-financial assets. The importance of this decision is especially evident in relation to financial assets due to their nature and the need for more knowledge and expertise in this field because the mistakes of investors in this regard can create many risks and challenges for them. The main purpose of this study is to explain the effect of personality traits and demographic features on the risk-taking behavior of investors in the Tehran Stock Exchange. The present research is a applied research in terms of goals and descriptive-survey research from the method view. The statistical sample of this research includes 358 investors of Tehran Stock Exchange during 2019 and 2020. Research data were collected based on Sivarjan (2018) questionnaire. The results of data analysis using structural equation modeling method indicate that personality traits including neuroticism, extraversion, openness, agreeableness and conscientiousness have a positive and significant effect on risk-taking behavior, but demographic characteristics including gender, age, marital status and education does not have a significant effect on risk-taking behavior.
Keywords: *Risk Tolerance, Risk-Taking Behavior, Investment Decisions, Demographics Traits*

Introduction

Personality is one of the most important study structures in organizational behavior that can play an important role in predicting human behavior. Belanchard sees personality as a set of habits. Alport considers it as a dynamic organizing within the individual that includes those psycho-physical systems that determine human behavior and thinking (Shirafkan, 2012). Personality types developed personality research through the efforts of Fisck (1949), Smith and Norman (1967), Goldbery (1981), and McCrae and Costa (2003) over these fifty years (Chery, 2011). Finally, researchers came to a relative agreement to describe the difference between personality, emotional, and social behavior and proposed the theory of five personality factors, known as the five big factors or the five powerful factors (Heinstrom, 2003). These five factors are: extraversion, Agreeableness, conscientiousness, neuroticism, acceptance of experience.

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Given the economic condition of the country, increasing living costs and increasing uncertainties, the need for more prudent decisions at all levels of life, especially financial, becomes more important.

One of these financial decisions is the optimal allocation of wealth to financial and non-financial assets. The importance of this decision is especially evident in relation to financial assets due to their nature and the need for more knowledge and expertise in this field, because the mistakes of investors in this regard can face their future lives with many risks and challenges. Global financial crises, such as those of 2000 and 2008-2009, were a wake-up call for investors, consultants, and investment firms to consider personality traits when making financial decisions and then determine the optimal portfolio. Since financial crises may lead to change in behavior of these investors and in some cases lead to an escalation of the crisis. Typically, the portfolio formation procedure is as follows:

1. Build different types of portfolios with different risks and returns using existing financial instruments;
2. Acquiring knowledge of preferences, especially preferences related to investor risk; And
3. Choosing an optimal portfolio for the investor according to the above two cases.

From above mentioned three stages, the second stage has the least development and structuring, which is examined in this study.

According to the aforementioned discussion, it is important to identify the factors that investors should consider when investing. Besides, what factors advisors and investment companies should consider when determining the portfolio of these investors has high significance. Under optimal performance of investment portfolios leads to financial and emotional concerns, which in turn lead to additional pressure on government public resources, especially to support bankrupts people. In addition, a dissatisfied investor reduces the volume of the business, damages the reputation or even includes in the risk of prosecution, which affects all stakeholders. Therefore, this study seeks to answer the question of whether personality traits and demographic variables affect investors' risk-taking behavior.

Theoretical Foundations and Research Background

Theoretical background

Investor psychology is one of the most important factors that affect investor market perception and attitude towards risk (Chang, 2008; Kourtidis et al., 2011; Young et al., 2012). Attitude toward risk-taking, in turn, determines the style of investment (Bali et al., 2009; Fellner & Maciejovsky, 2007; Hunter & Kemp, 2004). Previous studies have shown that characteristics, emotions, previous experiences, and financial knowledge are key determinants of an individual's risk-taking attitude and investment decisions (Carter and Chen, 2005; Grabel, 2000; Hunter & Kemp, 2004; Young et al., 2012). Financial experts who have always sought to identify and explain the behaviors and causes of events in financial markets, tried to explain the behavior of decision makers in financial markets with the help of behavioral sciences. The prevailing paradigm in financial theories is based on maximizing expected utility and risk aversion, while empirical real-world studies have made many attacks on financial theories and rational human assumptions in recent years.

The famous psychologist Carl Jung was among of the pioneers stated that the personality type of a person determines and limits a person's judgments (Jung, 1989). Personality in Jung psychology is defined as: individual differences in the pattern of characteristics of thought, feeling, and behavior. Among the personality models, the Big Five factor model is one of the most commonly used models and includes five personality traits extraversion, Agreeableness, conscientiousness, neuroticism, acceptance of experience (Digman, 1990; Lee and Ashton, 2004; Weller and Tulin, 2012).

Extraversion refers to the comfort of the individual in relationships. These people are constantly commenting, warm-hearted, sociable and decisive (McCrae and Costa, 2003; Caspi et al., 2005; Gholipour, 2007; Robbins, 2012). Agreeableness involves respect for others. These people have a spirit of cooperation, trustworthy, honesty and correctness, altruistic and good in nature (Gholipour, 2007; Robbins, 2012).

Conscientiousness takes into account the responsibility of the individual. Conscientious people are reliable, stable, structured and goal-oriented (Gholipour, 2007; Robbins, 2012).

Neuroticism is related to an individual's ability to tolerate stressors and stimuli. A hallmark of neuroticism is the tendency to experience negative feelings and view the world around us as a disturbing and threatening environment (McCrae, 2003; Caspi et al., 2005). Acceptance of experience refers to fascination and interest in new phenomena and experiences. People with this characteristic are imaginative and are free from restraints, curiosious, artistic, and thinkers (McCrae, 2003; Gholipour, 2007; Robbins, 2012).

In general, extroversion predicts positive effects, while neuroticism predicts negative effects. Sometimes the effects may even be measured a decade later (Costa and McCarr, 1980); Thus, personality traits are logically fixed over time and predict behavior and emotional states.

One of the fundamental concepts in investment decision-making process is the concept of risk. Based on individual level of risk tolerance, investors are divided into three categories: risk aversion, risk-neutral and risk-taking. Demographic factors that have a significant impact on investors' attitudes toward risk include age, gender, income level, education level, and marital status. Risk investment is used to define financial instruments other than investments with specific nominal returns such as bank deposits and bonds.

In this type of investment, the investor does not know how much he receives. He also might lose the invested money. Thus, venture capital is a concept that describes how much people are willing to invest in different venture capital options.

Schoemaker (1993) stated that individuals' inherent risk-taking differs from their observed risk-taking behavior. Some behavioral finance researchers (Canon and Catson, 2005; Canon and Chia, 2009) have suggested that the risk-taking attitude has genetic roots, but some researchers from the view of emotional finance have defined risky behavior by changing mental state (MacCarty, 2000).

In behavioral finance, Sitkin and Weingart (1995) examined the relationship between problem formation and venture capital decisions. On the other hand, Byrne (2005) has linked risk aversion behavior with experience. Wang (2011) also showed that people understand the tools that know more about them and therefore consider familiar and understandable tools less risky. Vlaev et al. (2009) and Diacon (2004) also showed that financial knowledge influences risky investment behavior. In general, the relationship between risk-taking and risk-taking behavior has a long history among the mentioned researchers and others (Weber and Millman 1997; Kiel et al., 2000; Cooper & Fasrook, 2011). However, extensive research has shortcomings, and has not examined the emotional or psychological roots of risky behavior, especially risky financial behavior, which provides a complete description.

It should be noted that previous research has been mainly based on cumulative market behavior or laboratory observations. Such approaches are less concerned with the aspects of decision-making that people act on when making decisions (Merkel and Weber, 2014). Therefore, the need to conduct research that examines the role and impact of personality traits on their investment decisions is quite obvious and necessary.

Research Background

Bineshian and Dehdar (2015) in a study entitled "Present the Model of the

relationship between financial intelligence behavioral trends and their impact on investors decisions based on the theory of planned behavior" examine a model to show the impact of financial intelligence and behavioral tendencies on investor decisions based on Planned behavior theory. The results indicate that variables such as rational behavior, bulk behavior, reactive behaviors, experience-based behavior and trial and error have effect on behavioral tendencies and behavior-based attitudes, mental norms, behavior control and perception of financial intelligence and finally on decisions investments. The effect of behavioral tendencies was 0.822 and financial intelligence was 0.810 and behavioral tendencies had a greater impact on investment decisions than financial intelligence.

Salmani Denglani et al. (2019) conducted a study with the aim of determining personality traits and investment patterns in the stock market and providing a model with a behavioral finance approach among real investors of the Tehran Stock Exchange. The required information was collected using a questionnaire and analyzed using SPSS and AMOS software. The results of his study showed that the components of neuroticism, extroversion, flexibility, agreeableness, motivation and self-confidence determine personality traits. The components of investor's demographic characteristics, investment type, investment objective, investment time, investment efficiency and stock characteristics determine investment patterns. And the components of risk-taking capabilities, exploratory factors, emotional factors, psychological influences, complaint behaviors and personal and social values determine behavioral-financial patterns among real investors in Tehran Stock Exchange. Examining the relationships between research variables showed that personality traits have a significant effect on behavioral-financial components.

Keshavarz et al. (2022) in their study, they analyzed the performance of 11 technical indicators, trading strategies based on trading systems. The data used to analyze the financial data of all companies admitted to the Tehran Stock Exchange in the period from 1389 to 1399. The results of his research showed that the signals containing three moving average indicators, exponential moving average and relative strength in a weekly to six-month period for buying or selling stocks (as a strategy) can be used more reliably than other indicators to achieve that. Become More returns and profits as a result, investors can use the signals that these three indicators in the weekly (EMA), monthly (MA, RSI) and three-month (MA) and six-month (RSI, EMA) periods for Determining buying and selling strategies with the least investment. There are also risks. It is recommended that investors use a combination of these three indicators for investment and extend their investment period for a longer period of time in order to bear less risk and more returns.

Jamshidi and Qalibaf Asl (2015) studied the effect of investors' personality on their trading behavior and investment performance in Tehran Stock Exchange. The results of this study showed that the frequency of transactions of extroverts, type a behavior (incessant desire to achieve the most success in the shortest time) and the tendency to maximize is higher (buy and sell more). Also, extroverts and people with high self-esteem and excitement have less portfolio diversity. Finally, more transactions are associated with better performance, while portfolio diversity has no effect on individual performance.

Gorjizadeh and Khanmohammadi (2017) conducted a study entitled "Influence of Behavioral finance factors on the decisions of individual investors." The obtained results indicated that the current return of the investor in the stock exchange, savings, years of participation in the stock exchange, income and investment horizon have the greatest impact on the volume of investment in the stock exchange, respectively.

Seifollahi et al (2015) conducted a study entitled "Comparative study of behavioral factors in investing financial assets". The

authors sought to investigate the effect of behavioral factors, avoidance of regret, the effect of mental accounting willingness, overconfidence, agency intuition, mass behavior Conservatism and the effect of ownership on investment in financial assets, and finally a comparative study of these factors. The results of this study showed that all factors other than the uncertainty factor affect investment, but the extent of this effect is different for each.

Fang and Wong (2020) examined the factors influencing risk, age effects, personal experience of famine, regional confidence levels, and income threshold on Chinese households' risk. They concluded that the accumulation of household wealth could significantly increase household risk-taking. Also, this relationship weakens with increase in age. for the elderly people, the personal experience of famine strengthens this effect. A higher level of regional trust can help increase a family's ability to take risks. The increase in the effect of income level on family risk-taking is significant for high-income families compared to low-income and middle-income families. In addition, the level of social security does not have a significant effect on household risk

Rabbani et al (2019) examined the relationship between financial risk-taking and five personality traits, including extraversion, adaptability, conscientiousness, emotional stability, and acceptance of new experiences, in people born from 1944 to 1964. Two-way t-test was used for dual groups and ANOVA was used for multivariate groups. The results of the analysis of research data showed that people of this generation who have a higher degree of extraversion, stability of emotion and acceptance of new experiences, have a higher risk than people who are more adaptable and conscientious.

Khojasteh et al (2019) examined the Credit Risk Measurement of Trusted Customers Using Logistic Regression and Neural Networks According to the information available, 17 variables were extracted including financial and nonfinancial variables for classifying customers into well-balanced and ill-balanced s. Among the variables, five effective variables on credit risk were selected using the parent forward stepwise selection technique, which was used to train neural networks with three neurons in the hidden layer.

Bollen and Posavac (2018) in their study entitled "Gender, risk tolerance and wrong consensus in asset allocation recommendations" examined the effect of gender on risk-taking and financial asset allocation. Their findings show that male students, in light of the evidence for gender differences in risk tolerance, choose to take more risks than female students.

Brooks et al (2018) in their study entitled why older investors are less inclined to financial risk, examined the effect of age on the degree of risk aversion of investors. By collecting more than half a million questionnaires, they found that risk tolerance decreased with age. In this study, the variables of ability to pay compensation, investment horizon and retirement effects were used. The findings showed that these variables have a significant interpretive ability to deal with age-related risk anxiety and can partially explain the relationship between age and risk tolerance.

Bucciol and Zarri (2017) examined the personality traits of individuals in portfolio formation during the period of 2006-2012. The results of their research showed that the decisions of individuals's portfolio are influenced by certain types of fixed personality traits and traditional aspects. Three personality traits that are negatively correlated with financial risk-taking are: Agreeableness, Cynical Hostility, and anxiety.

Research Hypotheses

Hypothesis1: Personality traits influence investors' risk-taking behavior.

Hypothesis 2: Demographic characteristics affect the risk-taking behavior of investors.

Research Methodology

The type of research is applied based on the purpose and its method is descriptive and correlational based on the way of data collection. The approach used in this research is quantitative and cross-sectional design. The statistical population of this research is the investors of Tehran Stock Exchange. In this respect, the community is considered unlimited, so the number of acceptable samples according to Morgan's table is 384 people. After designing the questionnaire, the questionnaire link was shared in several investment and stock exchange groups, and finally 358 questionnaires were collected. The questionnaire contained a questionnaire that clearly explained the study and its objectives to investors.

Library resources, articles and required books were used to collect information in the field of theoretical foundations and research literature. Questionnaire was used to collect data and information for analysis. The questions of the questionnaire consist of two parts: in the first part, the personal information or in other words, the demographic information of the subjects is questioned. This section includes 4 questions on gender, age, education and marital status, and the second section includes sixty-nine questions to measure personality traits and three questions to measure risk-taking behavior, based on a questionnaire designed by Sivarajan (2018), they were used. It should be noted that in the design of the questions of the second part of the questionnaire, the Likert scale of five options has been used.

In this study, regarding data analysis, first the research variables from raw events were gathered and prepared using Excel software and then the analysis was performed using Smart PLS statistical software. For statistical analysis of data, descriptive statistics including: mean, median, standard deviation, etc. have been used. Also, in order to test the research hypotheses, inferential statistics including: correlation and analysis of variance have been used.

In this study, risk-taking behavior is defined as a dependent variable. This variable is intended to examine the risk-taking of the investor for investment. Also, the variables of demographic characteristics (age, gender, education and marital status) and personality traits including Dospert risk variables, c maximization, Dospert risk perception, Duckworth Grit scale, Loss Aversion , decision-making style, Rational & Intuitive Decision-Making Style, neuroticism, conscientiousness, extraversion, c are defined as independent variables.

On the Nenkov Maximization Scale, those with the highest satisfaction scores on maximization believe that future returns are more aggressive and, as a result, increase stocks in stocks to maximize their returns. The Great DockWorth Scale assumes that those with higher introversion align their beliefs with longer market perspectives and thus have a greater commitment to stocks. On a loss-making scale, those who are more willing to avoid losses have been more conservative about returns and therefore have fewer stocks in their portfolios. Risk aversion was introduced as a concept by Kahneman and Torsky (1979), the effort of measuring it focused on the selection experiment. Iowa-Netherlands Comparison assumes that people who are willing to compare themselves to others may influence their investment decisions. At the risk-taking scale, it is assumed that risk perception, risk-taking behavior, and perceived benefits are all related to investment decisions. The Dospert scale is primarily defined for measuring risk-taking behavior and risk-taking and risk perception, and has five general areas: ethical; Financial (to investment and broken gambling); Health & Safety; social; and includes entertainment.

The conceptual model of this research is as follows:

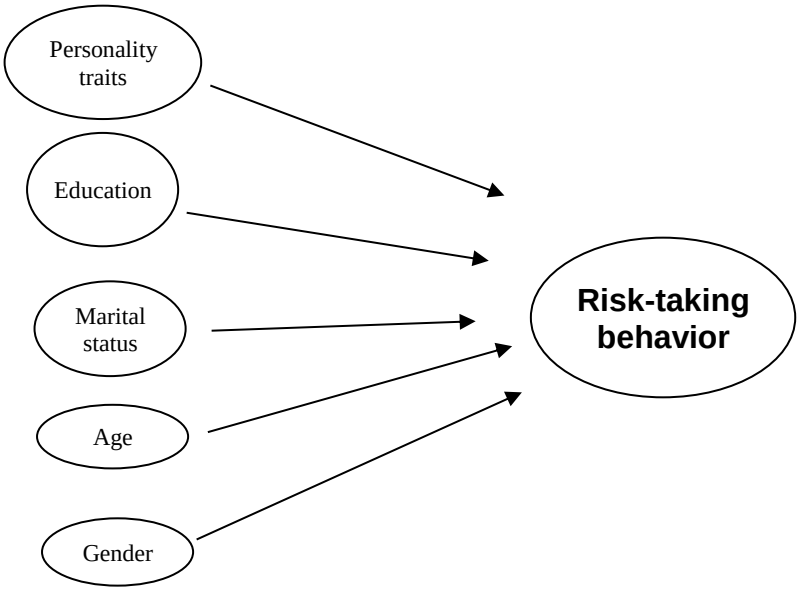

Figure 1. Conceptual model

Research Findings

The results of descriptive statistics related to the study variables show that the average risk in the research sample was about 2.9. Also, the standard deviation of this variable is reported to be around 0.92. Overall, 52% of the study participants were about 30 years old. In addition, about 43% of the sample were women and 57% were men. The level of education showed that about 13% of the statistical sample have diploma, 11% of the statistical sample are associate, 45% of the statistical sample are bachelor, 25% of the statistical sample are master and 6% of the statistical sample of doctorate. Besides, 59% of the statistical sample were single and 41% of the statistical sample were married.

Table 1.
Descriptive statistics of research variables

Variable	Domain	Maximum	Minimum	Standard deviation	Average
Dospert Risk Perception	5-1	5	1	0.816	3.548
Nenkov Maximization Scale	5-1	5	1	0.773	2.605
Dospert Risk Taking	5-1	5	1	0.677	3.045
Duckworth Grit Scale	5-1	5	1	0.722	2.329
Loss Aversion Scale	5-1	5	1	0.820	3.053
Rational & Intuitive Decision-Making Style	5-1	5	1	0.592	2.134
Dospert Perceived Benefits	5-1	5	1	0.707	2.783
Iowa-Netherlands Comparison Scale	5-1	5	1	0.744	2.533
Neuroticism	5-1	5	1	1.172	2.794
Consciousness	5-1	5	1	0.813	2.081
Extraversion	5-1	5	1	0.928	2.502
Openness	5-1	5	1	1.076	2.522
Agreeableness	5-1	5	1	1.069	3.097
Risk-taking behavior	5-1	5	1	0.923	2.906

Reliability of structures using three methods: The factor load of each item, the composite reliability of each structure, and the average variance extracted (AVE) were investigated (Fernell and Locker, 1981). If the factor loads of each item are equal to or greater than 0.4, they indicate good structure. Acceptable value for composite reliability is 0.7 and higher. In addition, the mean extracted variance should be 0.5 and higher. That is, the structure to explain 50% or more of the variance of its parameters. The values obtained for these indicators indicate the acceptable reliability of the measuring instruments (Tables 2 and 3). It should be noted that the variables of Dospert Risk Taking, Nenkov maximization, Dospert risk perception, Duckworth Grit scale, Loss Aversion, decision-making style, Dospert perceived benefits, comparability, neuroticism, conscientiousness, extraversion, open and Acceptability, compatibility, and agreement are related to the personality trait variable.

Table 2.
Factor loads of measuring instrument items

Loss Aversion (LAS)		Duckworth Grit (DGS)		RationalIntuitive Decision-Making (RIDS)		Iowa-Netherlands Comparison (INCOM)		NenkovMaximization (NMS)	
Factor load	Item	Factor load	Item	Factor load	Item	Factor load	Item	Factor load	Item
0.56	LAS	0.66	DGS	0.89	RID	0.70	INC	0.72	NMS
0.58	LAS	0.78	DGS	0.60	RID	0.82	INC	0.64	NMS
0.85	LAS	0.70	DGS	0.59	RID	0.78	INC	0.71	NMS
0.63	LAS	0.67	DGS	0.73	RID	0.72	INC	0.64	NMS
0.85	LAS	0.69	DGS	0.59	RID	0.92	INC	0.81	NMS
0.77	LAS	0.54	DGS	0.78	RID	0.58	INC	0.78	NMS
0.72	LAS	0.74	DGS	0.64	RID	0.53	INC	0.66	NMS
		0.91	DGS	0.56	RID	0.54	INC	0.92	NMS
				0.84	RID	0.86	INC	0.68	NMS
				0.78	، RID	0.77	INC	0.83	NMS
						0.82	INC	0.65	NMS

Risk-takingbehavior (QRI)		DospertPerceived Benefits (DPB)		DospertRisk Perception (DRP)		Dospert Risk Taking (DRT)	
Factor load	Item	Factor load	Item	Factor load	Item	Factor load	Item
0.91	1 QRI	0.79	1 DPB	0.84	1 DRP	0.75	1 DRT
0.89	2 QRI	0.81	2 DPB	0.76	2 DRP	0.87	2 DRT
0.75	3 QRI	0.76	3 DPB	0.82	3 DRP	0.95	3 DRT

Agreeableness (AG)		Openness (O)		Extraversion (EX)		Consciousness (C)		Neuroticism (N)	
Factor load	Item	Factor load	Item	Factor load	Item	Factor load	Item	Factor load	Item
0.86	AG1	0.91	O1	0.86	EX1	0.87	C1	0.99	N1
0.91	AG2	0.94	O2	0.89	EX2	0.92	C2	0.96	N2

Table 3.
Test of reliability of measuring instruments

Statistics Variable	*Cronbach's Alpha*	Combined reliability	AVE
Dospert Risk Perception	0.84	0.89	0.75
Nenkov Maximization Scale	0.91	0.92	0.54
Dospert Risk Taking	0.74	0.85	0.66
Duckworth Grit Scale	0.86	0.89	0.52
Loss Aversion Scale	0.84	0.88	0.52
Rational & Intuitive Decision-Making Style	0.88	0.90	0.50
Dospert Perceived Benefits	0.70	0.83	0.62
Iowa-Netherlands Comparison Scale	0.91	0.93	0.55
Neuroticism	0.97	0.98	0.96
Consciousness	0.75	0.89	0.80
Extraversion	0.71	0.87	0.77
Openness	0.86	0.92	0.86
Agreeableness	0.77	0.88	0.79
Risk-taking behavior	0.81	0.89	0.73

To evaluate the validity of the questionnaires, the root mean of the extracted variance of each variable should be greater than the correlation of that variable with other variables (Fernell and Locker, 1981). In other words, the correlation of each hidden variable and its indicators should be greater than the correlation of that variable with other variables. The root of the mean variance extracted at the end of the row is given in Table 4. It can be seen that the values for each variable are greater than the correlation of each variable with other variables, and this indicates the acceptable validity of the measurement tools.

Table 4. Correlation matrix of variables and root mean variance extracted

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dospert Risk Perception	0.86													
Nenkov Maximization Scale	-0.038	0.73												
Dospert Risk Taking	0.120	0.060	0.81											
Duckworth Grit Scale	0.018	0.157	0.058	0.72										
Loss Aversion Scale	-0.022	0.048	0.061	0.167	0.72									
Rational Intuitive Decision-Making Style	-0.003	0.206	0.1	0.310	0.143	0.70								
Dospert Perceived Benefits	0.040	0.087	0.292	0.063	0.079	0.091	0.78							
Iowa-Netherlands Comparison Scale	0.089	0.232	0.103	0.090	0.012	0.189	0.121	0.74						
Neuroticism	-0.014	0.008	0.052	0.051	0.041	-0.075	0.093	-0.138	0.97					
Consciousness	0.078	0.158	0.001	0.422	0.049	0.348	0.094	0.087	0.030	0.89				
Extraversion	-0.047	0.088	0.054	0.180	0.168	0.178	0.096	0.060	-0.073	0.262	0.87			
Openness	-0.002	0.086	0.124	.01	0.156	0.065	0.222	0.082	0.215	0.267	0.118	0.92		
Agreeableness	0.108	0.079	0.137	-0.087	0.019	-0.149	0.116	0.1	0.037	0.032	-0.016	0.148	0.88	
Risk-taking behavior	0.104	0.1	0.261	0.054	0.168	.0085	0.363	0.226	0.169	0.182	0.164	0.414	0.206	0.85

The relationship between variables is investigated in the method of least squares by path coefficients (β). In order to investigate the significance of the path coefficients in the model, t-statistic has been used. If t is outside the range of ±1.96, the path coefficient is at the level of 0.05 and if t is outside the range of ±2.58 , the path coefficient is at the level of 0.01. The coefficient of determination (R2) also shows what percentage of the variance of the dependent variable is explained and covered by the independent variable (what percentage of the variance of the dependent variable is due to the variable or independent variables).

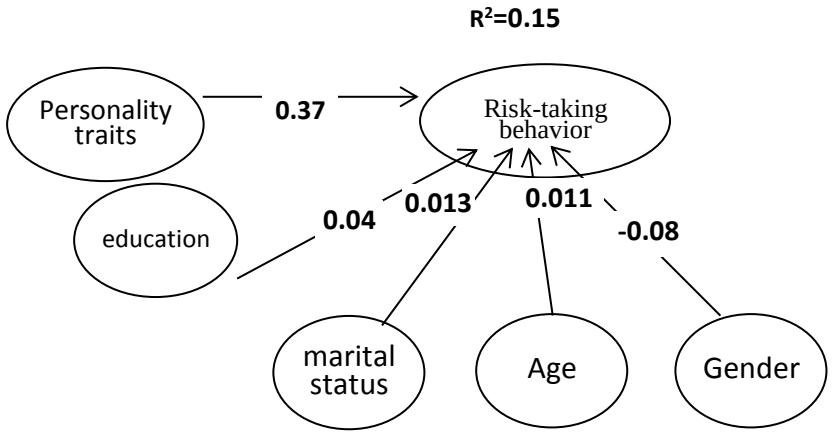

Figure 2. Summarizes the model studied in this study.

Based on the results of Figure 1, it can be seen that personality traits have a positive and significant effect on risk-taking behavior at the level of 0.01 (β = 0.37, t = 6.10). Demographic characteristics include; Gender (β = -0.08, t = 1.72), age (β = 0.011, t = 0.197), marital status (β = 0.013, t = 230.2) and education (04 B = 0, t = 0.971) have no significant effect on risk-taking behavior.

Combined reliability indices, average variance extracted, R^2 and Q^2 were used to fit the model. The results presented in Table 5 indicated the appropriateness of the combined reliability indices and the mean of the extracted variance. In addition, the values for R^2 and Q^2 are given in Table 5. The value of the coefficient of determination (R2) indicates that 15% of the changes in investors' risk-taking behavior are explained by the research model. The Q^2 statistic for risk-taking behavior is 0.11. Because the value of Q^2 is greater than zero, the whole model has the ability to predict the relationship of variables. Therefore, based on the presented indicators, the research model has a good fit.

Table 5
Values R^2 and Q^2

Statistics Variables	R^2	Q^2
Risk-taking behavior	0.15	0.11

Discussion and conclusion

Individual or personality factors are structures that describe the behavioral characteristics of individuals and help explain why different people react differently to the same situation. Most studies, citing the classical financial paradigm to explain the financial behavior of individuals, have emphasized the role of demographic or socio-economic factors as important factors. Accordingly, the first classical financial

condition that states each individual is rational, so the sum of the deviations from rational behavior is zero, and the probabilities are random in nature. Such an emphasis seems understandable. However, the behavioral financial paradigm highlights the psychological dimensions of individuals' financial behavior. This paradigm implies that not all people are rational, that deviation from rational behavior is systematic rather than accidental, and that probabilities are subjective rather than random; Thus, the emphasis shifts to the psychological or attitudinal motivations of financial behavior to include any kind of subjectivism. To be more precise, the main psychological concepts are discussed separately in the financial field. Among these, personality is one of the most important study structures in organizational behavior that can play an important role in predicting human behavior. Personality traits are one of the key factors influencing investment decisions. Broader personality traits such as (top five traits) and more specific traits including Dospert risk variables, Nenkov maximization, Dospert risk perception, Duckworth Grit scale, Loss Aversion , decision-making style, Dospert perceived benefits, comparability are assumed Which are related to investment decisions and in the literature described, all influence risk-taking behavior. Personality records are very distinct and strong in terms of five important personality traits.

According to the results of the study, personality traits have a positive and significant effect on risk-taking behavior at the level of 0.01. Intuitive and visual decision-making, perceived benefits of Dospert and Iowa-Netherlands comparability, neuroticism, conscientiousness, extraversion, openness and Agreeableness showed that these characteristics have a positive effect on investors' risk-taking behavior. That is, the investor's personality traits influence the risk-taking behavior of the individual. On the other hand, demographic characteristics include gender, age, marital status and education do not have a significant effect on risk-taking behavior. In other words, gender, age, being single or married, and education do not have a significant effect on risk-taking behavior. Based on the research results, it is suggested that investors perform personality tests on investing before entering the capital market and then based on these results for direct investment or investing through investment companies.

Make decisions. The most important limitations of the present study are the following:

1. Inherent limitations related to the questionnaire include the lack of full cooperation in completing the questionnaire by some investors, conservatism in answering the questions, the possibility of not understanding the concepts and content of the questions and also the possibility of different interpretations of the questions for respondents.

2. The most important issue that may limit the generalization of the results of this study is the multiplicity of disturbing variables that may affect the relationships between variables. Among the most important ones are the environmental conditions, fatigue of the respondents and the long time to complete the questionnaires.

3. In general, the respondent's mood and situation may also affect his or her responses, and the responses may be unrealistic, so that in real circumstances, each person's behavior may change.

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