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Original Article

## Provide a Model of Investors' Financial Behavior Based on Psychological and Ethical Factors

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#### Abstract

**Introduction:** Many investment decisions are not only affected by economic indicators and rationality, but also categories such as work experience, social responsibility, risk, investor self-confidence, etc. affect investor's behavior and their decisions. The main purpose of this study is to present a financial behavior model based on psychological and moral factors.

**Material and Methods:** The present study was mixed. In the qualitative part, the Delphi technique was used. The statistical population of all experts and managers of brokerages, investment funds, investment portfolios, traders and analysts had professional qualifications and high experience, of which 12 people were considered as snowball technique as a sample. It was an interview tool and finally the data were analyzed by fuzzy Delphi method. In a small part, the descriptive-survey method was used. 287 members of the investor community were considered as a sample. A questionnaire was used to collect data. Finally, using AMOS software, confirmatory factor analysis and structural equation design were investigated.

**Results:** It was shown that the expected return formed has a direct effect on the psychological characteristics of optimism, distrust, risk aversion and emotion, as well as ethics. It was also shown that psychological and moral characteristics affected turnover, trading volume, risk sharing, risk appetite.

**Conclusions:** The obtained results indicate the effect of emotional and psychological and moral characteristics and characteristics on the behavior of investors and is important to drive the market towards rationality and on the other hand as a basis for designing investment strategies for investment managers.

Keywords: Financial Behavior Model, Ethics, Psychological Factors, Capital Efficiency, Investment Decisions

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#### INTRODUCTION

The issue of risky decision making is one of the highest issues that every human being deals with in life. Every decision has potentially positive and negative consequences, and choosing the best option, considering ethical points and considering the consequences is the most important issue in decision making. Since man may not consider ethics in his decisions or he may not act completely rationally, there is a possibility of suffering as a result of a wrong decision [1-3]. Recent studies and research in the field of behavioral finance have shown that investors may not be aware of these wrong decisions and the effective factors that cause these mistakes [4]. Due to the instability of the environment and the increasing changes in society and unexpected events, risk has always existed and has been one of the main and important aspects in the survival of periods of human

life, especially in management [5]. Managers must always identify the risks that threaten the company or stock in order to make appropriate and targeted decisions, the right decisions require ethics and timely planning [6]. The growth and prosperity of any country depends on proper investment and planning, and the growing volume of investment in each country, the correct diversion of stray cash flows to productive work, economic growth, GDP growth, job creation, per capita income and ultimately public welfare [7]. Information on the factors influencing investor decision-making is very limited. Researchers in recent decades have analyzed the behavior of investors and tried to understand why people invest in different ways. There are articles explaining how ethical factors such as transparency of financial information and psychological characteristics of

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individuals affect the way they invest, but an article that explains the simultaneous effect of these two variables on the behavior of investors is rarely found [8]. According to the studies, evaluating the factors affecting the financial behavior of investors in financial decisions is very important [9]. According to modern financial theories, many ethical and behavioral issues are involved in investor decision making. However, it has not been experimentally tested that the factors that lead to the volume of transactions and increased risk-taking have not been tested. In addition, the potential impact of aforementioned moderating variables on the relationships has not been investigated in research. What has been learned from past research is that sustainable psychological mechanisms, as a moderating factor, can link the returns from a past portfolio to the volume of stock exchanges and future risk-taking [10]. Research in the field of finance shows that under conditions of uncertainty, human decisions systematically deviate from the decisions predicted by financial and economic theories. Also, human beings face problems and limitations in dealing with issues that these factors and limitations affect human evaluation and judgment [11]. Background, experiences and personal characteristics of the investor are among the factors that influence the judgment, evaluation and decisions of investors and individual factors play an important role in the decisions made in the process of asset allocation. Hence the dimensions of investor psychology, beliefs, preferences as well as the specific characteristics of each investor are things that investment advisers as well as investors themselves should be aware of [12]. Many factors affect investment risk and return on investment; One of the most important cases is the moral characteristics of investors [13]. The purpose of the topic of ethics in the capital market and the need to observe ethical rules and behavioral frameworks in this market is not to achieve ultimate goals and happiness in the hereafter, but more to maintain the health of the market, its performance and efficiency. Investors are withdrawing from this market. When the investor withdraws, liquidity, efficiency and market optimization decrease. An adverse event that can eventually lead to the collapse of the entire market. So, ethics in the capital market is one of the requirements for market growth and stability [14].

Also, people do not always act rationally and often behave unexpectedly. Personal characteristics play an important role in decision making. Many investment decisions are not only influenced by economic indicators and rationality, but also categories such as work experience, social effects, risk level, investor selfconfidence, etc. affect investor behavior and their decisions. Investors' knowledge of behavioral biases of personality and job characteristics, sources of knowledge and financial information that influence their financial decisions makes them aware of these factors and can overcome them.

Therefore, according to what has been said, the main purpose of this study is to present a financial behavior model based on psychological and moral factors.

In order to achieve the above goal, the following hypotheses have been proposed and tested:

Hypothesis 1: The expected return on a portfolio formed in the past leads to optimism, overconfidence, risk aversion and emotion.

Hypothesis 2: Optimistic behavior leads to turnover, trading volume, risk sharing and risk taking.

Hypothesis 3: Mutual trust behavior leads to turnover, trading volume, risk sharing and risk taking.

Hypothesis 4: Risk aversion behavior leads to turnover, trading volume, risk sharing and risk taking.

Hypothesis 5: Emotional behavior leads to turnover, trading volume, risk sharing, risk taking.

Hypothesis 6: Ethics leads to turnover, trading volume, risk sharing, risk taking.

Hypothesis 7: The interaction of psychological characteristics (optimism, overconfidence, risk aversion and emotion) and ethics has a mediating effect on the relationship between the expected return of the formed portfolio and the portfolio turnover of investors.

Hypothesis 8: The interaction of psychological characteristics (optimism, overconfidence, risk aversion and emotion) and ethics has a mediating effect on the relationship between the expected return of the formed portfolio and the volume of investors' transactions.

Hypothesis 9: The interaction of psychological characteristics (optimism, overconfidence, risk aversion and emotion) and ethics has a mediating effect on the relationship between the expected return of the formed portfolio and the risk sharing of investors.

Hypothesis 10: The interaction of psychological characteristics (optimism, overconfidence, risk aversion and emotion) and ethics has a mediating effect on the expected return of the portfolio and tends to investors' risk.

## MATERIAL AND METHODS

The present study was among the mixed researches. Data collection methods in this research are divided into two categories: library and field. Regarding the collection of information related to the literature and research background, library methods have been used and to collect information to confirm or reject the research hypotheses, the field method has been used.

In the qualitative part, the Delphi technique was used. The statistical population of all experts and managers of brokerages, investment funds, investment portfolios, traders and analysts had professional qualifications and high experience, of which 12 people were considered as snowball technique as a sample. It was an interview tool and finally the data were analyzed by fuzzy Delphi method.

In a small part, the descriptive-survey method was used. 287 members of the investor community were considered as a sample. A questionnaire was used to collect data. The first part of the questionnaire is the fuzzy Delphi questionnaire to identify and screen the identified indicators. The second part of the questionnaire is a confirmatory factor analysis questionnaire to identify the pattern of causal relationships between the identified indicators. The third part of the questionnaire is related to the technique of structural equations. In determining the validity and reliability of the expert questionnaire, because all the criteria have been considered in this assessment and the designer is not able to orient the design in a specific way, so questionnaires based on pairwise comparison have validity per se. The reason is that in the questionnaire, all the factors of the model are considered and compared with each other, so all the probabilities related to not considering a variable will be eliminated. On the other hand, because the questionnaire compares and measures all the criteria in pairs, so the maximum possible questions are asked to the audience with the desired structure, and because all the criteria have been considered in this assessment and the designer is not able to design specific questions. There will be no need to

measure reliability [13]. Cronbach's alpha method was used to determine the reliability of the questionnaire. Obviously, the closer the Cronbach's alpha index is to 1, the greater the internal correlation between the questions and, consequently, the more homogeneous the questions.

The reliability of the categories and components of the questionnaires are presented in Table 1.

Finally, using AMOS software, confirmatory factor analysis and structural equation design were investigated.

## RESULTS

#### **Qualitative Part**

Based on the results obtained from the qualitative part, the proposed research model was drawn (Figure 1).

#### **Quantitative Part**

Exploratory factor analysis with orthogonal rotation of Varimax was used to evaluate the validity of the structure. To prepare a valid scale, factor analysis method can be used to screen items and select the main items. After creating a set of preliminary variables in factor analysis by extracting the final set of variables to construct the scale is extracted. The principal component extraction (PCA) and varimax rotation methods are used here. In this case study, first, the criteria for measuring research variables based on studies have been identified. In total, a scale consisting of a number of criteria has been designed. Exploratory factor analysis method has been used for clustering the elements. Finally, according to the exploratory factor analysis of the components of each category, each related category and component has been studied and the results can be seen in Table 2.



Figure 1. Conceptual model of research

#### Table 1. Questionnaire reliability analysis using Cronbach's alpha

Category / Component	Cronbach's alpha
Ethics	
Responsibility	0.83
Respect for stakeholders	0.79
Obligation	0.77
Honesty	0.81
Optimistic behavior	
Beliefism	0.86
Power perception	0.84
Eventism	0.87
Overconfidence behavior	
Adoptability	0.79
Familiarity	0.81
Appearance	0.83
Short-sightedness	0.82
Risk aversion behavior	
Avoid ambiguity	0.77
Delay	0.79
Remorse	0.81
Metamorphosis	0.76
Emotional behavior	
Self-attribution	0.84
Optimize	0.83
Novelty	0.83
Stock returns	
Portfolio turnover	0.87
Turnover	0.86
Risk sharing	0.89
Tendency to take risks	0.84

Table 2. Investigation of exploratory factor analysis of research categories

Category / Component		Factorial load	KMO	Sig.	Explanted variance	Cronbach alpha
Ethics			0.783	0.000	39.624	0.76
F1	Responsibility	0.729				
F2	Respect for stakeholders	0.764				
F3	Obligation	0.723	7			
F4	Honesty	0.748				
Optimistic behavior	/		0.755	0.000	43.619	0.75
F5	Beliefism	0.761				
F6	Power perception	0.782				
F7	Eventism	0.693		A A		
Overconfidence behavior	مايە مىر يېرىكى	Ilber Ille	0.739	0.000	47.018	0.83
F8	Adoptability	0.684	9 00	121		
F9	Familiarity	0.722				
F10	Appearance	0.763	1.00			
F11	Short-sightedness	0.719	a 11-1			
Avoid risk behavior	( ) *	190	0.741	0.000	51.560	0.82
F12	Avoid ambiguity	0.665	, <u> </u>			
F13	Delay	0.720				
F14	Remorse	0.634				
F15	Metamorphosis	0.715				
Emotional behavior			0.749	0.000	54.339	0.75
F16	Self-attribution	0.728				
F17	Optimize	0.764				
F18	Novelty	0.756				

The results of the above table show that the exploratory classification of the research has a high factor load for the components that make up the research categories and the placement of the relevant components in a general category is approved.

# Confirmatory factor analysis and design of structural equations

In this study, a questionnaire was used to measure research variables. Therefore, to test the research hypotheses based on this scale, the accuracy of the scale used must first be confirmed. Therefore, confirmatory factor analysis has been used to measure the relationships between hidden variables and their measurement items. Based on the results obtained from all relevant variables and components, the measurement indices of each of the scales used at the 5% confidence level of t-value is greater than 1.96, which shows that the observed correlations are significant. All factor loads are higher than 0.3, also the significance level is less than 0.05. Therefore, the test relationship is confirmed. After confirming the factor structure of research structures, structural equation modeling has been used to investigate the relationships between variables. Structural equations have been used to test the research hypotheses.



Figure 2. Structural model estimating Amos software

All factor loads are higher than 0.3. To express the acceptability of the model, Bentler-Bonett normalized fit indices, relative fit, incremental fit, adaptive indices and full square have been used. The results obtained from the model are shown in Table 3.

RMSEA: This index is based on the analysis of the residual matrix and, unlike many fitting indices, can also be calculated for different confidence intervals. This index is based on a decentralized parameter. The value of RMSEA obtained is 0.025, which is less than 0.1 according to the standard value. In the following, according to the fitted model, the research hypotheses are examined.

## Testing research hypotheses

The results of the first hypothesis are presented in Table 4. The absolute value of the standard operating load among the expected return variables of the portfolio formed in the past on investor behaviors (optimism / overconfidence / risk aversion / emotion) is higher than 0.3. The value of t-statistic in all four relationships is greater than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the expected return of the portfolio on behaviors (optimism / overconfidence / risk aversion / emotion) is positive and significant. It has the greatest effect on superstitious behavior (0.45). It has the least effect on emotional behavior (0.32). Also, the effect of the expected return of the portfolio formed in the past on ethics is 0.51.

#### **Table 3.** Fits of the main model

Model	X2/df	RMSEA	NFI	CFI	GFI	IFI	RFI	PRATIO	PNFI	PCFI	SRMR
Accepted range											
Assessed rate	1.41	0.25	0.99	0.99	0.99	0.92	0.99	0.836	0.520	0.878	0.017

Table 4. The effect of expected returns on a portfolio in the past on behaviors (optimism / overconfidence / risk aversion / emotion) and personality

Independent V./ Dependent V.	Factor load	<b>T-Value</b>	Sig.	States
Expected returns of the portfolio formed in the past				
Optimistic behavior	0.41	4.89	0.000	Accepted
Overconfidence behavior	0.45	4.97	0.000	Accepted
Risk aversion behavior	0.37	3.38	0.000	Accepted
Emotional behavior	0.32	3.29	0.000	Accepted
Ethics	0.51	5.47	0.000	Accepted
Optimistic behavior				-
Turnover	0.45	5.19	0.000	Accepted
Trading volume	0.33	3.37	0.000	Accepted
Risk sharing	0.38	3.89	0.000	Accepted
Risk taking	0.42	4.68	0.000	Accepted
Overconfidence behavior				
Turnover	0.36	3.42	0.000	Accepted
Trading volume	0.33	3.21	0.000	Accepted
Risk sharing	0.44	5.47	0.000	Accepted
Risk taking	0.42	4.64	0.000	Accepted
Avoid risk behavior				
Turnover	-0.53	-6.58	0.000	Accepted
Trading volume	-0.47	-5.43	0.000	Accepted
Risk sharing	-0.48	-5.49	0.000	Accepted
Risk taking	-0.54	-6.68	0.000	Accepted
Emotional behavior				
Turnover	0.46	5.86	0.000	Accepted
Trading volume	0.43	5.35	0.000	Accepted
Risk sharing	0.52	6.51	0.000	Accepted
Risk taking	0.46	5.83	0.000	Accepted
Ethics				
Turnover	0.37	3.42	0.000	Accepted
Trading volume	0.41	5.64	0.000	Accepted
Risk sharing	0.32	3.18	0.000	Accepted
Risk taking	0.35	3.36	0.000	Accepted

The results of the second hypothesis are presented in Table 4. The absolute value of the standard factor load between the variables of optimistic behavior (turnover, trading volume, risk sharing, risk appetite) is higher than 0.3. The value of t-statistic in all four relationships is greater than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the effect of optimistic behavior leading to (turnover, trading volume, risk sharing, risk appetite) is positive and significant. The greatest impact is on the volume of transactions (0.45). It has the least effect on trading volume (0.33).

The results of the third hypothesis are presented in Table 4. The absolute value of the standard factor load between the variables of the resulting supra-trust behavior (turnover, trading volume, risk sharing, risk inclination) is higher than 0.3. The value of t-statistic in all four relationships is greater than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the effect of hyper-trusting behavior (turnover, trading volume, risk sharing, risk appetite) is positive and significant. The greatest effect is on risk

sharing (0.44). It has the least effect on trading volume (0.33).

The results of the fourth hypothesis are presented in Table 4. The absolute value of the standard operating load between the variables of risk aversion behavior (turnover, trading volume, risk sharing, risk appetite) is higher than 0.3. The value of t-statistic in all four relationships is greater than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the effect of risk aversion behavior (turnover, trading volume, risk sharing, risk appetite) is negative and significant. The greatest effect is on the willingness to risk (-0.54). It has the least impact on trading volume (-0.47).

The results of the fifth hypothesis are presented in Table 4. The absolute value of the standard factor load between the variables of emotional behavior (trading turnover, trading volume, risk sharing, risk appetite) is higher than 0.3. The value of t-statistic in all four relationships is greater than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the effect of emotional behavior leading to (turnover, trading volume, risk sharing, risk appetite) is positive and

significant. The greatest impact is on risk sharing (0.52). It has the least effect on trading volume (0.43).

The results of the sixth hypothesis are presented in Table 4. The absolute value of the standard operating load between the resulting ethical variables (turnover, trading volume, risk sharing, risk appetite) is higher than 0.3. The value of t-statistic in all four relationships is greater

than 1.96 and shows that the observed correlation is significant. Therefore, with 95% confidence, the effect of the resulting personality (turnover, trading volume, risk sharing, risk appetite) is positive and significant. It has the greatest impact on trading volume (0.41). It has the least impact on risk sharing (0.32).

**Table 5.** The mediating effect of psychological characteristics (optimism, overconfidence, risk aversion and emotion) and ethics on the relationship between expected portfolio returns and portfolio turnover

Independent V./ Dependent V./ Mediating V.	Independent impact on the mediator	Mediator impact on dependent	Impact in mediator position	State
Expected returns of the portfolio formed in the past				
Turnover				
Optimistic	0.41	0.45	0.59	Accepted
Overconfidence	0.45	0.36	0.56	Accepted
Avoid risk	0.37	-0.53	017	Rejected
Emotional	0.32	0.46	0.46	Accepted
Ethics	0.51	0.37	0.70	Accepted
Trading volume				
Optimistic	0.41	0.33	0.54	Accepted
Overconfidence	0.45	0.33	0.6	Accepted
Avoid risk	0.37	-0.47	0.2	Rejected
Emotional	0.32	0.42	0.45	Accepted
Ethics	0.51	0.41	0.72	Accepted
Risk sharing				
Optimistic	0.41	0.38	0.56	Accepted
Overconfidence	0.45	0.44	0.65	Accepted
Avoid risk	0.37	-0.48	0.19	Rejected
Emotional	0.32	0.52	0.48	Accepted
Ethics	0.51	0.32	0.67	Accepted
Risk taking				
Optimistic	0.41	0.42	0.58	Accepted
Overconfidence	0.45	0.42	0.64	Accepted
Avoid risk	0.37	-0.54	0.17	Rejected
Emotional	0.32	0.46	0.47	Accepted
Ethics	0.51	0.35	0.69	Accepted

Results of the seventh hypothesis Based on the obtained results, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between expected portfolio returns and portfolio turnover. If risk aversion has a negative mediating role (0.17).

The results of the eighth hypothesis are presented in Table 5. Based on the results, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between expected portfolio returns and trading volume. If risk aversion has a negative mediating role (0.2).

The results of the ninth hypothesis are presented in Table 5. Based on the obtained results, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between expected portfolio returns and risk sharing. If risk aversion has a negative mediating role (0.19).

The results of the tenth hypothesis are presented in Table 5. Based on the results, optimism, risk aversion, emotion and ethics have a positive mediating role in the expected return of the portfolio and tend to risk. If risk aversion has a negative mediating role (0.17).

## DISCUSSION

In the first hypothesis, the effect of the expected return on the portfolio formed in the past on the variables of optimism / distrust / risk aversion / emotion and ethics were investigated. The expected return of a portfolio formed in the past has a positive and significant effect on optimistic behavior, overconfidence behavior, risk aversion behavior, emotional behavior and ethics. Therefore, based on the result of this hypothesis, the expected return can affect the psychological and moral characteristics of investors. Based on the expected returns realized, investors have an optimistic or pessimistic attitude towards the stock market and cause emotional behavior and influence investors' judgment in investing. If the expected return is positive, it leads to optimistic, emotional and trusting behavior. In this case, investors are more actively inclined to issue buy marks. Higher emotions, therefore, increase optimistic and emotional behaviors. If the expected return is negative, it leads to risk aversion and control behaviors. In this case, the expected risk and the price of the risk are very important for investors. They become more risk averse

and the price of their expected risk increases. Expected returns also change people's attitudes toward investing and capital allocation, as well as changes in the ethical characteristics of investors. Examining past research [10] showed that the expected return of the portfolio formed in the past had a significant effect on optimistic behavior, overconfidence and risk aversion and is consistent with the results obtained in this hypothesis, but the variables of emotional behavior and ethics has not been studied in research.

In the second hypothesis, the effect of optimistic behavior on the variables of turnover, trading volume, risk sharing and risk appetite were investigated. The results showed that the effect of optimistic behavior on (turnover, trading volume, risk sharing, risk appetite) is positive and significant. Optimistic investors are known as the people who seek to choose the most profitable investment strategies. So optimistic behavior expects to experience good events. This optimistic attitude refers to the mental state of investors. The optimistic investor overestimates the price in order to achieve higher returns and therefore has a higher trading volume. Investors are optimistic that an increase in returns could lead to further increases in returns. These investors are more sensitive to increasing returns, so they are more inclined to make high-risk investments and are more risk-averse. Optimistic investors increase their trading volume after making an unusual profit. Reviewing previous research, [15] showed that optimistic behavior affects the performance of investors. Some researchers [10] have studied optimistic behavior and showed that optimistic behavior has a positive and significant effect on turnover, trading volume, risk sharing, risk appetite. Therefore, these researches are in line with the present hypothesis. In the third hypothesis, the effect of supra-trust behavior on the variables of turnover, trading volume, risk sharing and risk appetite were investigated. The results indicate that the effect of trans-trust behavior leading to (turnover, trading volume, risk sharing, risk appetite) is positive and significant. Overconfidence behavior causes one to overestimate one's knowledge and skills and underestimate risks, exaggerate one's ability to control events, and feel sluggish in controlling matters, when in fact it may not be. Therefore, the volume of transactions in investors with more confidence is higher than other investors. Mutual trust affects risk-taking behavior. Reasonable investors try to get the most return by accepting the least amount of risk. Investors with overconfidence, on the other hand, do not act rationally and misinterpret their accepted level of risk. Therefore, overconfidence increases the level of risk-taking.

Investors' long-term returns are expected to decline as the level of distrust increases. The reason for this is the increase in identified transaction costs. These people have more trading sequences. Therefore, they have a high turnover. Examining past research, research [16, 17] showed that overconfidence behavior affects the performance of investors. Also, in a study [10], examining the effect of overconfidence on trading turnover, trading volume, risk sharing, risk appetite has a positive and significant effect. Therefore, these researches are in line with the present hypothesis.

In the fourth hypothesis, the effect of risk aversion behavior on the variables of turnover, trading volume, risk sharing and risk appetite were investigated. Therefore, the results showed that the effect of risk aversion behavior leading to (turnover, trading volume, risk sharing, risk appetite) is negative and significant. Risk-aversion behavior causes more harm than good to individuals. This means that more psychological value is gained from the return of a loss dollar than a profit dollar. For this reason, they are more psychologically inclined to hold loss-making stocks than profitable stocks. Therefore, the turnover and volume of transactions in these people is low. It is also clear that they have a risk-sharing and a low-risk tendency. Because by selling profitable stocks, they will not be able to make more profits in the future, and by holding lossmaking stocks, they will share in its future losses. A review of previous research [15, 18] showed that risk aversion behavior affects the performance of investors. Also, a study [10] examined the effect of risk aversion behavior on turnover, trading volume, risk sharing, risk appetite and showed that they have a significant effect on the mentioned variables. Therefore, these researches are in line with the present hypothesis.

In the fifth hypothesis, the effect of emotional behavior on the variables of turnover, trading volume, risk sharing and risk appetite were investigated. The results showed that the effect of emotional behavior leading to (turnover, trading volume, risk sharing, risk appetite) is positive and significant. Emotional variables based on cognitive constraints examine the psychological state of stock market participants. The reason for emotional behaviors is the existence of weakness in analysis and the way to reduce their impact is to increase investing knowledge and investors' reference to expert advisors. Stock market shareholders always have a kind of followup due to low knowledge of investment issues, and this behavior increases the volume of transactions and reduces returns in the long run. Risk-taking and risksharing practices are greater in these excited investors.

These people buy stocks at any price without analysis. Because these people enter and leave the capital market under the influence of news and emotionally. A review of previous research [19] showed that emotional behavior has a significant and positive effect on the performance of investors. Research [20] showed that emotional intelligence and in a way emotional behavior affects the performance of investors. Therefore, the results of this study are consistent with the present hypothesis.

In the sixth hypothesis, the effect of ethics on the variables of turnover, trading volume, risk sharing and risk appetite were examined. The results showed that the effect of ethics on (turnover, trading volume, risk sharing, risk appetite) is positive and significant. All people are unique in terms of moral and cognitive characteristics, views, attitudes, tendencies, etc. In a situation, the moral characteristics of each person cause him to behave in accordance with his beliefs. This result is in line with the results of some research [21].

According to the Sobel test performed for the seventh hypothesis, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between the expected return of the formed portfolio and the portfolio turnover. Based on previous research [10] showed that psychological and ethical characteristics play a mediating role in the relationship between the expected return of the formed portfolio and the portfolio turnover of investors. Therefore, it is consistent with the result of the present hypothesis. No other research was found in this area.

According to the Sobel test performed for the eighth hypothesis, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between the expected return of the formed portfolio and the volume of transactions. Based on previous research [10], showed that psychological and ethical characteristics play a mediating role in the relationship between the expected return of the formed portfolio and the volume of transactions. Therefore, it is consistent with the result of the present hypothesis. No other research was found in this area.

According to the Sobel test performed for the ninth hypothesis, optimism, risk aversion, emotion and ethics have a positive mediating role in the relationship between the expected return of the formed portfolio and risk sharing. Based on previous research [10], showed that psychological and ethical characteristics play a mediating role in the relationship between the expected return of the formed portfolio and risk sharing. Therefore, it is consistent with the result of the present hypothesis. No other research was found in this area. According to the Sobel test performed for the tenth hypothesis, optimism, risk aversion, emotion and ethics have a positive mediating role in the expected return of the formed portfolio and tend to risk. Previous research [10] has shown that psychological and ethical characteristics mediate the relationship between the expected return of the formed portfolio and the tendency of investors to take risks. Therefore, it is consistent with the result of the present hypothesis. No other research was found in this area.

Based on the obtained results, the following suggestions are made:

Due to the size of the study population and very high cultural differences, in the future, the studies in this field need to focus on more examples and in this regard, multinational comparisons should be made to make a difference. He also considered cultural perceptions over risk perceptions.

Also, due to the fact that professional and legal investors have more experience in the field of investment, in future studies, these people will be sampled to test the current research model.

Also, the relationship between investment strategies in the stock market and risk perception along with investors' trust in the adopted strategies should be tested.

## CONCLUSION

Finally, the results of this study can be expressed in different ways; First, in addition to the ethical behaviors of investors as one of the influential factors in the flow of capital and capital market movement, examining the relationship between ethical behaviors and investment efficiency of companies can increase the awareness of managers and investors to avoid wasting scarce economic resources. Second, this study increases investors' confidence in the negative consequences of emotional decisions and away from logic, and encourages them to avoid emotional behaviors as much as possible. Third, this research is based on the current capital market and the behavior of investors at the moment, so the behavior of investors is examined, which in the last decade has been considered by economic policymakers in the country's development vision document and general policy statement of Article 44 of the Constitution. They are the main players in the capital market. Fourth, the Iranian stock market, like other stock markets in the world, succumbs to the immature behaviors of investors and easily loses its efficiency in the field of optimal capital allocation. Therefore, the results obtained from the effect of emotions and psychological and moral characteristics in this research are important

to lead the market to rationality and on the other hand as a basis for designing investment strategies for investment managers.

### **Ethical Consideration**

Ethical issues (such as plagiarism, conscious satisfaction, misleading, making and or forging data, publishing or sending to two places, redundancy and etc.) have been fully considered by the writers.

#### REFERENCES

- 1. Mohammadi R, Rahmani S. Evaluation of Behavioral Factors Affecting Investors' Decisions in Tehran Stock Market. (In Persian). J Econom Business. 2017;14:83-94.
- 2. Mirfallah-Nassiri R, Tojari F, Zarei A. Investigating the Factors Affecting the Ethical Decision-making of Sports Consumers. Int J Ethics Soc. 2019;1(1):22-30.
- Asadiyan Owghani A, Hajiha Z, Royaee R, Vakilifard H. Investigating the impact of ethical ideology and the threat of self-interest on ethical decision-making of auditors. Int J Ethics Soc. 2020;1(4):14-20.
- Narmanji M, Toghi F. Investigating the relationship between financial risk tolerance and investment and financial intelligence: Presenting a Theoretical Framework. 9th Congress of Development Pioneers, Iran/Tehran. (In Persian)2016.
- Aydemir S, Aren S. Do the effects of individual factors on financial risk-takingbehavior diversify with financial literacy? Emerlad Pub Limited. 2017;281:368-492. doi: 10.1108/K-10-2016-0281
- Nguyen L, Gallery G, Newton C. The influence of financial risk tolerance on investment decision-making in a financial advice context, Australasian accounting. Business Finance J. 2016;10:1-22. doi: 10.14453/aabfj.v10i3.2
- 7. Dianati-Deilami Z, Raiesifar K, Iravani A. Risk acceptance in financial decisions according to psychological factors: The role of loss aversion mediator. [M.A thesis]. Kharazmi University. (In Persian)2016.
- Jamshidi N, Ghalibaf Asl H. Studying the effect of investors' personality on their business behavior and investment performance, Evidence from Tehran Stock Exchange. (In Persian). Financ Res J. 2018;20(1):75-90.
- Tauni M, Rao Z, Fang H, Gao M. Does investor personality moderate the relationship between information sources and trading behavior? Evidence from Chinese stock market. Manage Financ. 2017;43:1-38. doi: 10.1108/MF-08-2015-0231
- Khan MT, Tan SH, Chong LL. How past perceived portfolio returns affect financial behaviors-The underlying psychological mechanism. Research in International Business and Finance. 2019. doi: 10.1016/j.ribaf.2019.07.088

## **Conflict of Interest**

The authors declare that there is no conflict of interests.

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- Heidari Haratemeh M, Ameri Shahrabi M. Impact of the investor's mood state on expected return on investment. (In Persian). J Financ Engineer Secur Manage. 2020;11(42):362-86.
- 12. Mohammadi M, Hashemi SA. An investigation of the impact of investors' excitement on price-profit ratio. (In Persian). J New Res Approach Manage Account. 2019;5(26):20-3.
- 13. Alihoseinzadeh R, Mohammadi MH. Investment ethics and behavior. (In Persian). J Economic Financ Manage Account. 2017;3(1).
- Pech W, Milan M. Behavioral economics and the economics of Keynes. J Socio Econom. 2009;38(6):891-902. doi: 10.1016/j.socec.2009.06.011
- 15. Weber M, Elke U, Nosic A. Who takes risks when and why: determinants of changes in investor risk taking? Rev Financ. 2013;17(3):847-83. doi: 10.1093/rof/rfs024
- 16. Glaser M, Weber M. Overconfidence and Trading Volume. Geneva Risk Insurance Rev. 2007;32(1):1-36. doi: 10.1007/s10713-007-0003-3
- 17. Dorn D, Huberman G. Talk and action: what individual investors say and what they do. Rev Financ. 2005;9(4):437-81. doi: 10.1007/s10679-005-4997-z
- Keller AC, Smith KT, Smith LM. Do gender, educational level, religiosity, and work experience affect the ethical decision-making of US accountants? Critic Perspect Account. 2007;18(3):299-314. doi: 10.1016/j.cpa.2006.01.006
- Ebrahimi K, Dastgir M, Latifi Z. Evaluating capital market analysts' personality traits as a third dimension to their success. (In Persian). Invest Knowledge J. 2017;6(22):87-100.
- 20. Ziyaeipour A, Miladian H. The impact of financial literacy on investors' financial behavior in tehran stock exchange. The 2nd National Conference on Key Issues in Management and Accounting Sciences, Gorgan, Farhangian University. (In Persian)2016.
- 21. Bineshian Z, Dehdar F. Presenting the model of the relationship between financial intelligence behavioral trends and their impact on investors' decisions based on the theory of planned behavior. (In Persian). J Invest Knowledge. 2018;7(25):203-22.