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EMPIRICAL ANALYSIS OF THE FINANCIAL BEHAVIOR OF INVESTORS WITH BRAND APPROACH (CASE STUDY: TEHRAN STOCK EXCHANGE)

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Abstract

Behavioral science in the field of finance and investment is among new topics raised in recent years. The relationship between financial sciences and other fields of social sciences such as financial psychology has caused researchers to do many researches regarding the behavior of investors in the financial markets and their reactions to different situations. Based on the theories of financial behavior, shareholders' decision to buy and sell stocks is under the influence of internal and external psychological factors. Through designing and experimental testing of the model of investors' financial behavior in the Tehran Stock Exchange with an emphasis on brand, this study was an attempt to investigate the influence of these factors. To this end, financial, psychological and social factors were considered as the most important external factors influencing the behavior of investors and, considering the mediating role of brand awareness, their impact on perceived risk and perceived return as well as investment intention was tested. The research population consisted of all individual investors in the Tehran Stock Exchange. In order to determine the sample size, considering unlimited population, Cochran formula was used and hence the sample size was determined to be 145. For data collection, standard questionnaire was used. Confirmatory factor analysis was used to test the reliability of the questionnaire and the research hypotheses were tested using path analysis. The results showed that psychological factors have a positive impact on perceived risk and returns. Financial factors had a positive impact on perceived risk but no impact on perceived return. The impact of social factors on perceived risk and perceived return was not confirmed. Moreover, the results showed that brand awareness has a moderating role in the relationship between social factors and perceived risk and return. However, its moderating role was not confirmed in the relationship between the psychological and financial factors and perceived risk and return. Perceived risk had a positive effect on attitude toward the brand. However, the impact of perceived return on attitude toward the brand was not significant. Finally, the attitude toward the brand had a positive effect on shareholders' investment intention.

Keywords: behavioral finance; perceived return; perceived risk; brand awareness; Tehran stock exchange

JEL classification: G02

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1. INTRODUCTION

Most economic theories have been founded on the premise that people act rationally in the face of economic events and consider all available information in their investment process. This premise is the basis of efficient market hypothesis (Bennet and Selvam, 2013). An efficient market is associated with the theory of rational expectations, including the assessment of all information about property (Guzavicius *et al.*, 2014). Generally speaking, in an efficient market, prices are considered to be an appropriate and accurate signal for the allocation of resources. Moreover, in such a market, natural and legal persons can make a lot of decisions on investment and choose the best security among those offered by different companies. In a market, if the price of securities is the reflection of all available information, that market can be called an efficient market. There are three versions of the market efficiency measurement (EMH), namely weak, semi-strong, and strong. Weak EMH claims that the prices on assets already reflect all past publicly available information. Semi-strong EMH claims both that prices reflect all publicly available information and those prices instantly change to reflect new public information. However, strong EMH additionally claims that prices instantly reflect even hidden or insider information (Tuyon and Ahmad, 2016). The efficiency of market is very important, because, when a capital market is efficient, stock price is determined fairly. Additionally, capital allocation, which is the most important factor in production and economic development, is done optimally (Khajavi and Ghasemi, 2006).

However, researchers have questioned this basic hypothesis and uncovered evidence showing the absence of rational behavior in relation to investment. Financial behavior is one of the factors which violates the efficiency of financial markets and can affect the performance of stock exchange in many ways (Bennet and Selvam, 2013). Zhang and Wang (2015) have showed that the attention of individual investors can affect the performance of the stock market. Limited attention of investors applies a positive price pressure and the return of this price pressure occurs in short-term. Oprean and Tanasescu (2014) also suggest that business is affected by the irrational behavior of investors. Thus, irrational assumptions are rejected for both capital markets. Financial behavior includes a wide range of aspects of psychology and social sciences and is in great contradiction to the efficient market hypothesis (Khajavi and Ghasemi, 2006). Financial behavior is defined as a rapidly growing field that deals with the influence of psychology on the behavior of financial employees. Financial behavior basically focuses on the manner of interpretation of micro and macro information by investors for a better decision-making (Bennet and Selvam, 2013). The relationship between finance and other social science disciplines, known as financial psychology and financial behavior, deals with the decision-making process of investors and their response to different conditions of financial markets and its emphasis is more on the influence of personality, culture and judgment of people when they make investment decisions. In fact, financial behavior has been proposed in contrast to the paradigm of rational behavior of investors. The paradigm of financial behavior suggests the idea that views such as complete prediction, flexible prices, and thorough knowledge seem unrealistic in making investment decisions. In other words, financial behavior is a new paradigm in theories which deal with the systematic understanding and prediction of overall mechanisms and decision-makings; thus, together with classic financial models, financial behavior can analyze market behavior more accurately (Tehrani and Khoshnoud, 2005). Scholars of financial literacy suggest that the theories of financial behavior can explain the empirical disorders and exceptions in the finance traditional

paradigms. According to these new theories, market exceptions are resulted from behavioral deviations (Khoshtinat and Nadi Ghomi, 2009).

The main issue in this study is the evaluation of investors' financial behavior in the Tehran Stock Exchange. Given the importance of financial behavior, factors affecting it should be investigated. Financial factor, as one of the first factors considered in the area of financial behavior, is one of the factors which affect the buying and selling behaviors of investors. Aspara and Henrikki (2011) found that in most investment decisions of consumers, they intend to invest in selected stocks which are beyond their expected risk and financial return. However, other researchers have examined the effect of different factors such as psychological, social, and demographic factors on financial behavior. Supporters of financial behavior knowledge firmly believe that awareness of psychological tendencies is absolutely essential in the area of investment. Bakar and Ng Chui Yi (2016) examined the impact of psychological factors on investors' decisions in the Stock Exchange of Malaysia. According to the findings, overconfidence, conservatism and willingness to be available had significant effects on investors' decisions, while mass behavior had no effect on it. Moreover, from the perspective of complex systems, an economic system in addition to factors such as technical expertise, markets, and so forth, includes social factors as well that affect financial behavior of investors. Jahangiri-e-Rad *et al.* (2014) found out that investors in the Tehran Stock Exchange have social behavior and this type of behavior in growing market is higher than that of declining market. In addition to what was said, many people's choices, whether in the area of goods purchase or in connection with the purchase and sale of companies' stocks, are influenced by the brand. Nowadays, brand-related programs have witnessed significant growth and many economic activists have emphasized the need for and benefits of such programs. Therefore, it can be expected that a company's brand and the investors' perspective toward it can affect the decisions related to the purchase and sale of that company's stock.

Accordingly, this study attempts to offer a conceptual model for the empirical analysis of the financial behavior of the investors in the Tehran Stock Exchange and examine it empirically. To this end, in addition to considering perceived risk and perceived return as the main basis for the behavior of the investors, it is intended to investigate the influence of external factors including financial, psychological, and social factors on the financial decisions of the investors in the Tehran Stock Exchange. Moreover, the role of brand-related factors such as attitude toward and awareness of the brand, as moderating variables in the relationship between the three mentioned factors and behavioral indicators of buying and selling stocks, is considered in the form of the research conceptual model.

The research literature shows that behavioral finance, as one of the new specialized areas of financial sciences, has been considered by many researchers. As was shown, in their studies, researchers attempted to identify the factors that based on a psychological approach might affect their decisions in different financial markets such as the Stock Exchange. However, the main gap in these researches stems from the lack of a comprehensive approach in examining behavioral finance; this means that researchers have examined only some of the factors which influence the behavior of investors (Huang *et al*., 2016; Duxbury, 2015; Kumar and Goyal, 2015; Durand *et al.*, 2013; Muradoglu and Harvey, 2012; Olsen, 2010). Accordingly, this research is one of the first studies that, through evaluating different theories of behavioral finance, have tried to test a hybrid and relatively comprehensive model for the identification of the intended factors. Based on the model of this research, all the previous studied factors have been placed in one of three general financial, psychological and social categories and their impact on the attitude, perceived risk and

perceived return of the investors was examined. Additionally, marketing experts opine that many consumption behaviors of people can be influenced by the characteristics of the brands. The results of many studies conducted in the area of consumer behavior show that indicators such as brand reputation, brand trust, brand loyalty and so forth have influenced the process of many products (Pinar *et al.*, 2016; Gait and Worthington, 2015; Chuah and Devlin, 2011; Martenson, 2008). Thus, the main innovation of this study is to consider the variable of brand awareness in order to evaluate its impact, together with the impact of other social, financial and psychological factors, on financial behavior of investors. The results of this research can introduce new perspectives for the application of marketing principles of financial services in the area of financial and behavioral sciences. Finally, it should be noted that many studies conducted in the area of behavioral finance are related to financial markets of developed countries. Therefore, this research, focusing on the Tehran Stock Exchange as one of the main financial markets of emerging economies in Iran, can be an important contribution to the application of behavioral finance theories and models in the context of developing countries.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Behavioral finance

Behavioral finance is a meta-theoretical approach which considers investors as weak and fanatical individuals with irrational behaviors (Katarachia and Konstantinidis, 2014). Furthermore, behavioral finance, as a new field, seeks to combine behavioral and psychological theories with the conventional economic and financial matters so as to explain irrational decisions of investors. In behavioral finance it is assumed that the structure of information and traits of market participants affect investment decisions of people systematically (Shafi, 2014). The most common human traits (fear, anger, greed, selflessness) place a considerable emphasis on our decisions about money. Intellect (grasping a situation), reason (long-term consequences of the action taken) and emotion (considering a course of action) are all interrelated; they are the springs behind human decision. Human behavior is generally reactive, not proactive; therefore, it is difficult to make predictions on the basis of narrow rules. Behavioral finances can relatively easily explain why an individual has made a decision, but have difficulty in quantifying what effects that decision will have on the individual (Oprean, 2014).

Before the introduction of behavioral finance to financial management and economics, the behavior of investors in the capital market was interpreted based on economic utility theory; while, scientific researches and studies on behavioral finance reveal the importance of psychological factors (Foster and Kalev, 2016). Behavioral finance is important both at individual and corporate levels. Usually most researches of corporate behavior are related to capital structure, budgeting or financing problems (Jureviciene *et al.*, 2014). The relationship between financial science and other social sciences, known as financial psychology or behavioral finance, examines the decision-making process of investors and their response to different conditions of financial markets and emphasizes the impact that personality, culture and judgment of people may have on their investment decisions. In fact, behavioral finance has been proposed against the paradigm of rational behavior of investors. Behavioral finance paradigm addresses the issue that views such as complete prediction, flexible prices, and complete knowledge seem to be unrealistic in investment decisions. In

other words, behavioral finance is a new paradigm in the theories that deals with the systematic understanding and prediction of general mechanisms and decision-makings with an emphasis on codes of conduct. Doing so, behavioral finance together with financial classic models analyzes market behavior more accurately and precisely (Aren *et al.*, 2016).

2.2 Determinants of behavioral finance

Many economists, sociologists, and psychologists have attempted to evaluate the behavior of investors in the stock exchange from different perspectives. Questions of economists regarding the behavior of investors focus more on the rational and irrational aspects of investors' decision-making process. By contrast, sociologists explain investor's behavior based on an emphasis on the social environment of the investor. On the other hand, psychologists evaluate investor's behavior through focusing on individual traits (Shafi, 2014). Thus, from an overall point of view it can be said that many factors influence the decisions of people to invest in the stock market. In a general classification these factors can be divided into two categories: internal and external. Economic conditions, political upheavals, cultural features, the issues within the company and so forth, as the most important external variables, have been considered by many researchers. On the contrary, internal factors include personality and psychological traits whose evaluation has a special importance in the behavioral finance of investors (Lodhi, 2014; Bennet *et al.*, 2011; Doling Dowling *et al.*, 2009; Subrahmanyam, 2007). In another classification, these factors can be divided into common and uncommon factors. Common factors include financial, psychological, social and demographic characteristics and uncommon factors include advertising, brand awareness, diversity of goals, inflation, economic expectations and stock market (Shafiee *et al.*, 2016; Brown and Taylor, 2014; Gherzi *et al.*, 2012; Kourtidis *et al.*, 2011). The present study is intended to evaluate the impact of common factors on the behavioral finance of investors; these factors are divided into three categories: financial, psychological, and social.

Financial factors are among the most important factors the effect of which on the behavioral finance of investors has been examined in many previous studies. Among the financial factors, which influence people's investment decision, factors such as price anchoring, attitude towards risk, market, and representativeness can be named:

- **Representativeness**

This phenomenon appears in financial markets in this way that investors assume that the recent information and events will continue in the future too; hence, investors look for the so-called "hot" stocks and do not place the stocks with not a good situation in their portfolio (Tehrani and Khoshnoud, 2005). Representativeness also appears in another way that is called the "rule of small numbers". According to this rule, investors believe that new events and procedures will continue (Ra'aei and Falah-pour, 2005).

- **Price anchoring**

Decision-makers put a part of information as a source of decision-making and usually consider their last experiences as a reference point of decision-making (Tehrani and Khoshnoud, 2005). Price anchoring means that during quantitative estimates individuals are unduly influenced by previous estimates, figures and numbers mentioned in the statement of the problem. In general, anchoring leads to little reaction of investors to the new information; this is the opposite of representativeness effect. Anchoring is in fact a kind of conservatism (Ra'aei and Falah-pour, 2005).

- **Attitude towards risk**

Investors' attitude towards risk is determined by their cognitive and emotional ability. Attitude towards risk puts the investor in a subjective high-risk situation. As mentioned previously, attitude towards perceived risk means acceptance or avoidance of risk at the times when the decision is made under uncertain results (Wanyana, 20111).

- **Market**

If the prospect of investors' financial behavior is correct, it is believed that investors will show a greater or lesser response to price or news change, extrapolation of past trends into the future, lack of attention to the basic principles of stock, focus on popular stock, and seasonal price cycle. These market factors respectively affect the decisions of investors in the stock market (Ngoc, 2014).

In addition to financial factors, psychological factors have been mentioned in some studies as another class of factors affecting behavioral finance. Proponents of "financial behavior" knowledge firmly believe that awareness of psychological tendencies is absolutely essential in the area of investment; moreover, for those who believe that the role of psychology in financial literacy is obvious as a factor affecting security markets and investors' decisions, it is difficult to accept that there is doubt about the reliability of financial behavior (Zanjeerdar *et al.*, 2014). Some psychological factors which influence individuals' investment decisions include overconfidence, prospect, investor awareness, and loss aversion:

- **Loss aversion**

When an investor is in the loss area, s/he is more inclined to risk. Empirical evidence shows that losses are twice as painful as the sweetness of profits. In fact, investors, by taking more risk, intend to lower their loss and hence reduce the painfulness of loss (Tehrani and Khoshnoud, 2005).

- **Overconfidence**

Confidence is one of the most important aspects of animal spirits. Scholars believe that confidence, signifying the behavior beyond the rational approach to decision-making, plays a major role in the economy. When people have confidence, they get down to business and buy. They make decisions spontaneously. The asset value is high and may be on the increase but when they are distrustful they withdraw and sell (Oprean, 2014). Overconfidence is a state in which people tend to think they are better than what they really are. Investors that exhibit overconfidence in their trading behavior are likely to expect larger returns during periods of boom on financial markets; such investors also attribute their successes to their skills, while their failures to "bad luck" (Toma, 2015). Psychologists have found that overconfidence makes people assess their knowledge high, consider the risk low, and exaggerate their ability in controlling the events (Katarachia and Konstantinidis, 2014). People generally see themselves as better decision-makers than what they really are.

- **Prospect**

It is indicative of the results the realization of which is the individual's long-term target. In other words, prospect refers to what we want to be in the future. Traders are willing to take subsequent/future risk even if they are associated with losses. In contrast, traders who have experienced profit do not expose themselves to future risks (Ngoc, 2014).

- **Investor awareness**

People's understanding is influenced by the data they select for processing. People do not have access to all data and their awareness is determined by the type of information they receive. Every individual interprets information differently and their interpretation of information is influenced by their knowledge, feelings, and attitude towards others (Wanyana, 2011).

Finally, this research intends to evaluate the impact of social factors on decisions to buy and sell stocks. From the viewpoint of complex systems, an economic system does not include only factors such as technical expertise, markets, factories, and financial companies, but rather factors such as social factors which are not easily visible and are related to the physical factors (Fathi and Dehghani-e-Anari, 2013). One of the social factors which influence financial behavior is herding behavior. If we consider human societies carefully and analyze people behavior, we will find that those who interact with each other and live under a regime or system usually think and behave similarly. "Social impact" is another factor that plays a major role in directing people's judgment. When people face with the same judgment of a great group of partners, they will assume that their different answer is probably incorrect. These people simply believe that everyone can make mistakes and, hence, they will change their minds and coordinate themselves with the group (Shahrabadi and Yousefi, 2008).

2.3 Effect of brand on behavioral finance

Investors usually tend to transact stocks which they know about them. Acquaintance with a company can affect consumer's perceived risk and return of the company as they will use the company's specific facts to achieve their expected risk and return (Azwadi, 2011). Brand awareness reflects the existence of brand in the memory of investor and, as this awareness increases shareholder information, it provides a condition to increase the trade of the company's shares and persuade shareholders to hold the company's shares for a long time. Through the following factors, brand awareness can lead to added value: 1) putting the brand into the mind of investor, 2) as a barrier to the invalid brands, and 3) reassuring investors about the performance of the organization. Brand awareness does not necessarily require the remembrance of the brand and the investor may recognize the brand based on the company's position in the stock market. Shareholders generally place more trust in the performance of the companies with a prestigious brand, and buy and sell the shares of such companies more confidently (Nourbakhsh and Arghavani, 2016). As a result, brand awareness, because of creating confidence in investors, can have a moderating role in the relationship of the social, psychological, and financial factors with the investors' perceived risk and return.

On the other hand, attitude towards the brand reflects the response of investors to the brand. Attitude towards the brand can be shaped based on the ideas about the internal properties of the brand, and functional and empirical benefits as well as the brand's external properties and symbolic benefits. In general, the more favorable a person's attitude towards a brand is, the more likely that person will buy the stock of the company related to that brand. On the other hand, attitude towards the brand is defined as a response to the company. These responses, which reflect the attitudes of shareholders, include three components of cognition, emotion, and behavior. Cognitive component refers to the belief

and knowledge of the brand and belief refers to the information one has about the brand. Emotional component focuses on the investor's assessment of the brand. In particular, emotional component represents a desirable-undesirable feeling toward the brand. Behavioral component is an essential component and includes commitment as shareholders make a decision and this decision leads to a final behavior that is the trade of shares (Nourbakhsh and Arghavani, 2016). On the other hand, perceived risk and return have effect on attitude toward the brand, that is, if the perceived risk is lower and the perceived return is higher, the impact on attitude will be more favorable. By and large, it can be concluded that attitude toward the brand can have an intermediary function between perceived risk and return and investment intention.

Based on what was said in the literature review and research background sections, conceptual model of the study can be shown as Figure no. 1.

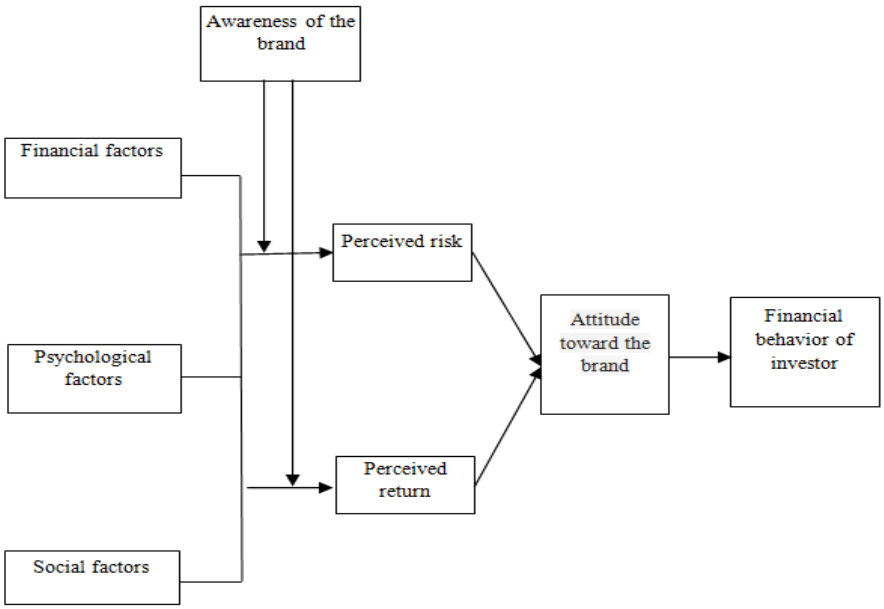

Figure no. 1 – Conceptual Model

Based on the conceptual model, the research hypotheses can be introduced as follows:

1. Financial factors have effect on the perceived risk of investors in the Tehran Stock Exchange.
2. Financial factors have effect on the perceived return of investors in the Tehran Stock Exchange.
3. Psychological factors have effect on the perceived risk of investors in the Tehran Stock Exchange.
4. Psychological factors have effect on the perceived return of investors in the Tehran Stock Exchange.
5. Social factors have effect on the perceived risk of investors in the Tehran Stock Exchange.

6. Social factors have effect on the perceived return of investors in the Tehran Stock Exchange.
7. Perceived risk has effect on investors' attitude toward the brand in the Tehran Stock Exchange.
8. Perceived return has effect on investors' attitude toward the brand in the Tehran Stock Exchange.
9. Attitude towards the brand has effect on financial behavior of the investors in the Tehran Stock Exchange.
10. Brand awareness has a moderating role in the relationship between financial factors and perceived risk.
11. Brand awareness has a moderating role in the relationship between financial factors and perceived return.
12. Brand awareness has a moderating role in the relationship between psychological factors and perceived risk.
13. Brand awareness has a moderating role in the relationship between psychological factors and perceived return.
14. Brand awareness has a moderating role in the relationship between social factors and perceived risk.
15. Brand awareness has a moderating role in the relationship between social factors and perceived return.

3. METHODOLOGY

Different types of research are classified based on nature, objective, and method. In terms of objective, researches include fundamental, applied, and practical researches. On the other hand, in terms of nature and method, researches include historical, descriptive, causal, correlational, and experimental. The current research is a descriptive one since, in order to identify and describe the characteristics of variables, it is conducted in a given situation. Moreover, the research strategy is survey type which refers to research procedures in which the researcher implements a survey on a sample or whole society in order to describe the society's attitudes, thoughts, behaviors, and characteristics.

3.1 Population and sampling

In order to check the financial behavior of investors with a brand approach, investors who have traded at least once in the Tehran Stock Exchange were considered as the population of the study. However, to obtain sample size, Cochran's formula was used with the assumption of unlimited population. This formula is as follows:

$$n = \frac{Z_{\frac{\alpha}{2}}^2 S^2}{d^2} \quad (1)$$

Cochran's (1963) formula uses two key factors. The first factor refers to the risk that the researcher is willing to accept in the study, commonly called the margin of error. The second one is the level of acceptable risk the researcher is willing to accept that the true margin of error exceeds the acceptable margin of error. In Cochran's formula, the alpha

level is incorporated into the formula by utilizing the t-value for the alpha level selected (e.g., t-value for alpha level of .05 is 1.96 for sample sizes above 120). Another critical component of sample size formulas is the estimation of variance in the primary variables of interest in the study. The researcher does not have direct control over variance and must incorporate variance estimates into research design. Cochran (1963) listed four ways of estimating population variances for sample size determinations: (1) take the sample in two steps, and use the results of the first step to determine how many additional responses are needed to attain an appropriate sample size based on the variance observed in the first step data; (2) use pilot study results; (3) use data from previous studies of the same or similar population; and (4) estimate or guess the structure of the population assisted by some logical mathematical results. The first three ways are logical and produce valid estimates of variance; therefore, they do not need to be discussed further (Bartlett *et al.*, 2001; Israel, 1992).

In this formula, n stands for the sample size, d for estimation error that is equal to 0.05, α for the confidence level of 95%, S^2 for the sample variance pre-estimation that is equal 0.095. For the sample variance pre-estimation, a pilot study was conducted through distributing questionnaires among 30 shareholders of the Tehran Stock Exchange. Given these numbers and their place in the formula, the sample size was estimated to be 145 subjects.

To select the sample, convenience sampling method is used. To this end, Hafez Hall was selected as the greatest stock trading forum in Tehran. This hall is known in Iran as the first building established in the stock exchange to bring investors together, and now is known as the most important and largest trading center in the Tehran Stock Exchange. In this regard, the research team visited this trading hall and distributed the questionnaires among the investors. Finally, after several consecutive visits 107 questionnaires were collected from the investors.

3.2 Measurement and data collection

To collect and analyze data, standardized questionnaire has been used the validity of which was evaluated formally; the questionnaire's reliability was also assessed using confirmatory factor analysis method the results of which are shown in the "data analysis" section. Validity answers the question that to what extent the measurement tool can measure the intended feature. One way to assess validity is face validity; accordingly, one questionnaire was given to university professors, financial experts and investment specialists to comment on the integrity and transparency of the questions of the questionnaire. Finally, after applying the commented editions, the questionnaire's validity was confirmed in several successive stages. Reliability was assessed using the method of first order confirmatory factor analysis.

The variables used in this study include financial, social, and psychological factors that, through the moderating role of brand awareness, have effect on perceived risk and return. These two latter variables, through the variable of attitude toward the brand, can influence financial behavior of investors. For data collection, standardized questionnaire has been used. Table no. 1 shows the variables of the study and resources used to prepare standardized questionnaire.

Table no. 1 – Primary and secondary variables of the study

Reference	Measurement indicators	Primary variable
Shafi (2014)	price anchoring, attitude towards risk, market, representativeness	Financial factors
Shafi (2014)	overconfidence, prospect, investor awareness, loss aversion	Psychological factors
Shafi (2014)	herding behavior	Social factors
Wanyana (2011)	-	Perceived risk
others	-	Investor's financial behavior Attitude toward the brand Perceived return Brand awareness

For data collection, given the spatial and temporal restrictions of the authors, the spatial domain of the research was considered to be Tehran Hafez hall which is one of the main trading floors in the whole country and can be considered as the main representative of the trading floors in other cities. In order to distribute the questionnaire, first, the researcher referred to Hafez hall and, after gaining the approval of the related authorities and the necessary permits, the questionnaires were distributed to and collected from the shareholders who were at the place at that moment of time. In addition, the researcher visited some other brokerage companies in Tehran such as Etminan Sahm, Ordibehesht Iranian, Iran Insurance Exchange, Behin Pooya, and Bank of Industry and Mine, and distributed the questionnaires among the employees of these companies who were previously shareholders in the Tehran Stock Exchange as well as among the shareholders who referred to these companies to do their administrative works. Finally, after several visits, 107 questionnaires were collected that shows the response rate of 70%.

3.3 Statistical analysis methods

For data analysis, Kolmogorov-Smirnov test, confirmatory factor analysis, and path analysis were used in this research. In order to use statistical techniques including path analysis, it should be first determined that how the collected data are distributed. In case of normal distribution of the collected data pragmatic tests and in case of non-normal distribution of the data non-pragmatic tests are used (Khateri, 2012). In this research, Kolmogorov-Smirnov test was used to determine the distribution of the data.

Before estimating the model, the reliability of the questionnaire should be tested by using confirmatory factor analysis. In confirmatory factor analysis, the aim of researcher is to confirm special factor structure; moreover, in connection with the number of factors, a hypothesis is expressed openly and the factor structure fit intended in the hypothesis is tested through the measured covariance structures (Badri *et al.*, 2011).

Finally, the research hypotheses are tested using path analysis. Path analysis method is an extension of normal regression which is able to express the direct, indirect and total effects of each of the independent variables on the dependent variables and can logically interpret the correlation observed between them. The aim of the path analysis is to obtain quantitative estimates for the causal relationships among a set of variables. Structural modeling is a comprehensive statistical approach to test hypotheses with regard to the relationship between

observed and latent variables. Confirmatory factor analysis and path analysis are different types of this method. In social and behavioral sciences, because of limited access to a detailed analysis in controlled conditions, appropriate indicators or signs should be used to measure theoretical variables (Hoyle, 1995). Path analysis is among the statistical methods which has the ability to realize such a goal. Path analysis is an extension of normal regression which has the capacity to express direct, indirect and total effect of each independent variable on dependent variables; it can logically interpret the relationships and correlations observed among them (Chou and Bentler, 1995). Path analysis aims at obtaining quantitative estimations for causal relationships among a set of variables. Compared with the regression analysis, path analysis has numerous advantages that have caused it to be widely used in many recent researches. For example, in regression analysis, the dependence of one variable to other variables is evaluated just in one equation that is the same as standardized line regression equations. While in path analysis, calculated betas include path coefficients which connect a certain set of independent variables to the dependent variables and are examined in several equations. Moreover, regression and regression coefficients show the direct impact of the independent variable on the dependent variable, while path analysis in addition to showing the direct effect of the independent variable on the dependent variable, shows indirect effects too. Path analysis also reveals the amount of false relationships among variables; this means that it reveals that what extent of these relationships results from independent variable or is related to the variables outside the researcher's analysis. Finally, compared with regression, path analysis can provide considerable information about the causal processes that is due to its having multiple standardized line regression equations. Thus, in path analysis, theoretical model of the research is tested based on the model of causal relationships between variables and after performing the test, this theoretical model is changed into empirical model of research (MacCallum and Austin, 2000; Crespi and Bookstein, 1989). Therefore, given the unique advantages of path analysis, the conceptual model of this research will be tested based on path analysis method and using the specialized software of AMOS.

4. RESULTS

The results of the demographic characteristics analysis of the sample are shown in Table no. 2.

Table no. 2 – Demographic features of the sample members

Demographic features		Frequency	%
Sex	Male	85	79.4
	Female	22	20.6
	Total	107	100
Age	Less than 25	11	10.3
	25-35	48	44.9
	35-45	16	15
	45-55	14	13.1
	Over 55	18	16.8
	Total	107	100
Education	Diploma or less	23	21.5
	Associate degree	1	0.9
	Bachelor's degree	49	45.8
	Master's degree and	34	31.8

Demographic features		Frequency	%
	more		
	Total	107	100
Personal income	Less than 250$	35	32.7
	Between 250-500	38	35.5
	Between 500-1000	6	5.6
	More than 1000$	21	19.6
	Missing	7	6.5
	Total	107	100
The time of activity as an investor	Less than 1 year	10	9.3
	1-3 years	34	31.8
	3-5 years	22	20.6
	5-10 years	18	16.8
	More than 10 years	23	21.5
	Total	107	100
The time of keeping the stock	Less than 1 month	26	24.3
	1-6 months	44	41.1
	6-12 months	19	17.8
	More than 12 months	18	16.8
	Total	107	100
Expected earnings threshold	0	0	0
	Less than 5%	11	10.3
	5-10%	30	28
	10-15%	31	29
	More than 15%	31	29
	No response	4	3.7
	Total	107	100

As shown in the above table, 79.4% of the respondents are male and 20.6% are female. Most members of the population (44.9%) are people aged between 25 and 35, and the lowest number of it (10.3%) are younger than 25. Moreover, most members of the population (45.8%) have a bachelor's degree, while associate's degree holders constitute 0.9% of the research population. Most members of the population (35.5%) have an income of 10-20 million rials, and people with 30-40 million rials income constitute 5.6% (the lowest number) of the population. Additionally, people with 1-3 years of activity as an investor constitute the most members of the population (31.8%) and those with less than one year of activity are 9.3% (the lowest number). Most members of the population (41.1%) keep their shares for 1-6 months, while 16.8% of the members (the lowest number) keep their shares more than 12 months. Finally, the expected threshold of less than 5%, with 10.3%, has the lowest frequency and the expected threshold of 10-15% and more than 15%, with 29%, has the highest frequency.

In order to test research hypotheses, first of all, through using Kolmogorov-Smirnov test, the normal distribution of data is checked in the research variables. Then, in order to verify reliability of the questionnaire's questions, the results of first order confirmatory factor analysis will be offered. Finally, the research hypotheses will be tested using path analysis method. The results obtained from Kolmogorov-Smirnov test are shown in Table no. 3.

Table no. 3 – Kolmogorov-Smirnov test

Variable	Mean	Standard deviation	p-value	H_0
Overconfidence	3.028	0.61663	0.230	Confirmed
Loss aversion	3.3481	0.69936	0.184	Confirmed
Price anchoring	3.1822	0.58481	0.067	Confirmed
Representativeness	3.6199	0.63353	0.021	Unconfirmed
Perceived risk	3.4252	0.51395	0.236	Confirmed
Investor awareness	3.3517	0.51047	0.255	Confirmed
Collective behavior	3.1526	0.73013	0.031	Unconfirmed
Prediction	3.3154	0.5667	0.216	Confirmed
Market	3.8738	0.68022	0.000	Unconfirmed
Perceived return	3.2897	0.72939	0.147	Confirmed
Brand awareness	3.095	0.63614	0.343	Confirmed
Willingness to invest (investor behavior)	3.3402	0.7311	0.271	Confirmed
Attitude toward the brand	3.1706	0.92629	0.000	Unconfirmed

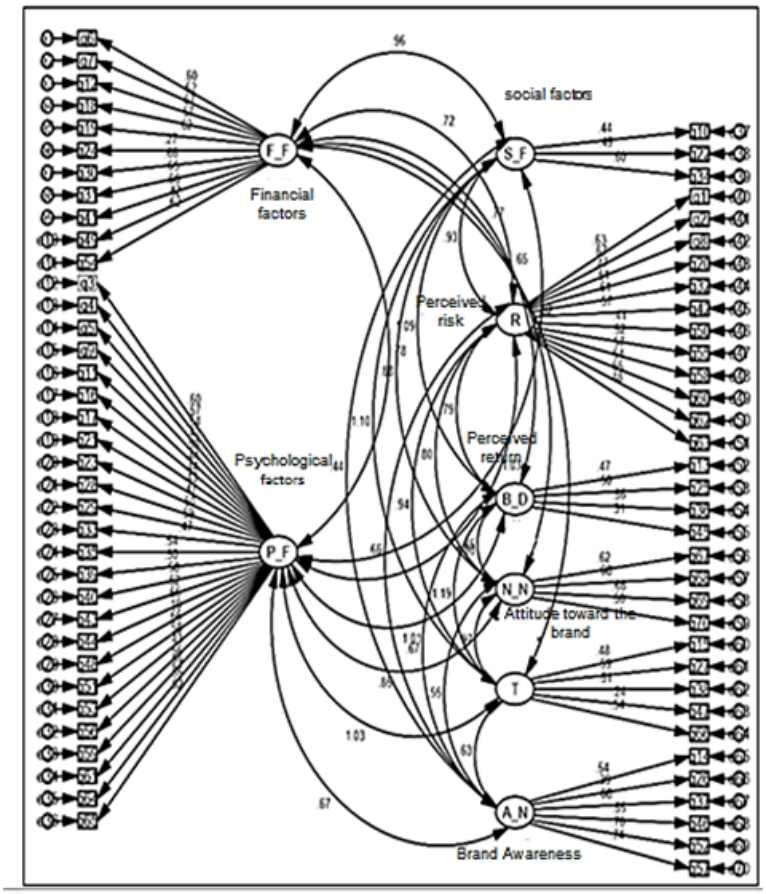

Figure no. 2 – Results of the first order confirmatory factor analysis

According to the Table no. 3, if the significance level is less than 0.05, the null hypothesis is rejected and, thus, the data cannot follow a normal distribution. Accordingly, the variables of overconfidence, loss avoidance, price stabilization, perceived risk, investor's awareness, prediction, perceived return, brand awareness, and willingness to invest have a normal distribution. On the contrary, the normal distribution of the variables of representation, mass behavior, market, and attitude toward the brand was not confirmed.

Figure no. 2 and Table no. 4 show the results of the first order confirmatory factor analysis based on the research questionnaire.

Table no. 4 – The results of the first order confirmatory factor analysis

Variable	Description	Standard factor	Critical factor	Sig.
Financial factors	In making decisions to buy stocks, I compare the current stock price with its minimum and maximum price in previous months.	0.604		
	I refuse to invest on the stock of the companies with low profitability.	0.621	10.298	***
	I carefully follow the changes in the price of the stocks I intend to buy or sell.	0.671	10.932	***
	I sell the purchased shares if their price has past the maximum price of the previous months.	0.567	9.592	***
	I use my previous experiences of buying and selling stocks in my future decisions, because I believe that past experiences will be repeated again in the future.	0.619	10.276	***
	Market information has many effects on me to make decisions on buying and selling stocks.	0.272	4.986	***
	If stock prices have risen over the last year, I do not like to buy that stock.	0.658	10.77	***
	The stocks of those companies are attractive for me whose income in the past has had a growing trend.	0.654	10.721	***
	To my mind, the stock price is high if it has reached to its maximum in recent months.	0.659	10.775	***
	I believe that last week minimum and maximum stock price will determine the domain of its volatility in the coming days.	0.424	7.499	***
	In order to predict future stock price, I use the trends in the change of its price in the last time periods.	0.616	10.244	***
Psychological factors	I pay attention to the information published in the Stock Exchange.	0.598		
	I have a high level of investment skills in the stock exchange.	0.568	9.865	***
	I have many fears regarding the losses in buying and selling stocks.	0.541	9.481	***
	I usually try to be aware of the happenings in the stock exchange.	0.42	7.66	***
	My risk tolerance threshold is usually reduced after having experiences of loss in buying and selling stocks.	0.497	8.846	***
	My knowledge is higher than other investors who are active in the stock exchange.	0.438	7.944	***
	Losses related to buying or selling stocks lead to my anger.	0.443	8.022	***
	I usually follow up the events related to the stock exchange through the TV news at least twice a week.	0.427	7.76	***
	When the stock price declines, I usually refrained from selling it.	0.468	8.4	***
	In stock exchange, I am an experienced investor.	0.502	8.91	***
	In the case of poor market conditions, I will not increase the amount of my investment.	0.595	10.221	***

Variable	Description	Standard factor	Critical factor	Sig.
	I usually follow up the news related to the stock exchange through newspapers at least once a week.	0.472	8.469	***
	I sell the purchased stock if its price has increased.	0.537	9.422	***
	In decisions related to buying and selling of stocks, I have more confidence in my own views than the comments of my friends and colleagues.	0.502	8.921	***
	In buying and selling stocks, maintaining the initial capital for me is more important than gaining profit.	0.582	10.05	***
	I am aware of the role and duties of brokerage companies in the stock exchange.	0.524	9.236	***
	I decide separately about the stocks in my investment portfolio.	0.558	9.723	***
	Before deciding to buy and sell stocks, I consult with my family members, friends and other people.	0.194	3.721	***
	I easily have access to the latest reports, predictions, and financial statements of any company in the stock exchange.	0.665	11.123	***
	My knowledge and expertise in the field of buying and selling stocks is at a level which can contribute to the proper functioning of me in the stock exchange.	0.582	10.057	***
	I usually have trust in operating and investing in the stock exchange.	0.43	7.82	***
	I usually take part in the conferences and exhibitions related to financial markets at least three times a week.	0.564	9.807	***
	I usually visit the website of the stock exchange.	0.293	5.518	***
	The recommendations of my friends and acquaintances have effect on my presence at the stock exchange for buying and selling stocks.	0.55	9.614	***
	In my decisions regarding the buying and selling of stocks, I am usually willing to consult with the employees of brokerage companies, brokers and other specialized companies.	0.517	9.142	***
Social factors	I usually respond quickly to changes in the investment decisions of others and often follow the trends of trading stocks in the stock exchange.	0.44		
	The actions of other investors have a great impact on my decisions regarding the buying and selling of stocks.	0.491	7.516	***
	Decisions of other investors influence my investment objectives.	0.604	8.366	***
Perceived risk	I usually do not fear to buy stocks which have had a positive function in the past.	0.634		
	I usually regret buying shares whose price will be reduced.	0.667	11.511	***
	I usually tend to buy stocks which have a relatively guaranteed profit.	0.465	8.43	***
	I am usually cautious about buying shares whose price fluctuates suddenly.	0.51	9.159	***
	I am usually worried about the repurchase of the shares of the companies which have been associated with loss for me.	0.606	10.633	***
	My buying and selling decisions in the stock exchange are primarily based on my previous expertise, knowledge and experience.	0.572	10.116	***
	I am always interested to buy and sell stocks.	0.406	7.452	***
	In selecting brokerage companies to buy and sell stocks, I usually pay attention to their reputation.	0.518	9.277	***
	I can trust easily to the knowledge and skills of the employees of brokerage companies.	0.573	10.132	***

Variable	Description	Standard factor	Critical factor	Sig.
	I can easily determine the level of confidence to the stock exchange.	0.536	9.565	***
	I feel that buying and selling shares in the stock exchange is a fascinating work.	0.549	9.762	***
	To my mind, it is easy to work with the online system of stock trading in the stock exchange.	0.484	8.734	***
Perceived return	Investment on the stock exchange will create more return for me.	0.468		***
	I believe that the stock exchange will operate satisfactorily in the future.	0.498	8.02	***
	Stock Exchange has good resources to grow up in the future.	0.56	8.581	***
	I think that investing in the stock exchange will bring me a good profit.	0.307	5.687	***
Attitude toward the brand	Bad – good	0.615		***
	Weak – strong	0.676	10.394	***
	Negative – positive	0.681	10.448	***
	Unattractive – attractive	0.578	9.247	***
Willingness to invest	To my mind, buying and selling shares and investment in the Stock Exchange make good sense.	0.484		***
	I am interested to persuade my family members and friends to invest in the Stock Exchange.	0.594	9.026	***
	I would like to continue buying and selling shares in the stock exchange for the next few years.	0.509	8.239	***
	I prefer investment in the stock exchange to other parallel markets such as housing, gold, currency and so on.	0.241	4.635	***
	Even in the case of temporary fluctuations in the stock market, I will not leave the market.	0.541	8.556	***
Brand awareness	I am familiar with the brand of the companies listed in the Tehran Stock Exchange.	0.538		***
	I have a lot of information about the main business of the companies listed in the Tehran Stock Exchange.	0.394	6.591	***
	Companies in the Tehran Stock Exchange enjoy a high reputation.	0.682	9.718	***
	My buying and selling decisions in the stock exchange are primarily based on my previous expertise, knowledge and experience.	0.551	8.482	***
	I usually have trust in operating and investing in the stock exchange.	0.784	10.49	***
	When I hear a company's brand in the Tehran Stock Exchange, a particular product of that company is envisaged in my mind.	0.742	10.198	***

It should be noted that *** means that the significance level is less than 0.001. The results of the Figure no. 2 and Table no. 4 suggest that all questions of the questionnaire are in a good condition. Thus, it can be said that all items have the ability to measure the research variables.

AMOS software has been used in order to test the research model using path analysis method. As previous tests show that some variables do not follow a normal distribution, Boot Stripping method is used in path analysis. Figure no. 3 shows the path coefficients of the research model.

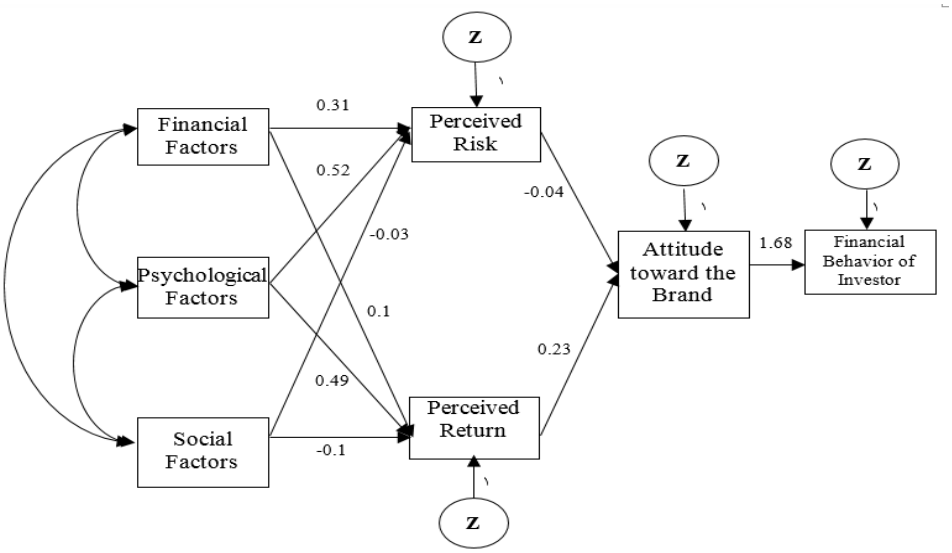

Figure no. 3 – The path coefficients of the research model

Fit indices of the model are shown in Table no. 5.

Table no. 5 – Fit indices of the model

Type of fit index	Index	Model
	NPAR	24
	DF	4
	P (greater than 0.05)	0.192
Absolute fit indices	CMIN (Chi Square)	6.097
	AGFI (greater than 0.9)	0.889
	GFI (greater than 0.9)	0.984
Comparative fit indices	TLI (greater than 0.9)	0.963
	NFI (greater than 0.9)	0.981
	CFI (greater than 0.9)	0.993
Thrifty fit indices	PNFI (greater than 0.5)	0.187
	PCFI (greater than 0.5)	0.189
	RMSEA (lower than 0.8)	0.070
	CMIN/DF (lower than 5)	1.524

According to the Table no. 5, fit indices have been divided into three categories: absolute, comparative/relative and thrifty. The results show that among the absolute indices, CMIN and GFI are located in an acceptable range. All relative indices including TLI, NFI, and CFI are also in an acceptable range. Similarly, the values obtained for the thrifty indices of RMSEA and CMIN/DF are acceptable too. Therefore, the majority of the used indices denote the proper fit of the research model and, hence, the estimation results of the relationship in the research model are valid.

The model and the calculated path coefficients are shown in Table no. 6.

Table no. 6 – Path coefficients of the research model

Hypothesis	Independent variable	Dependent variable	Standardized coefficient	Standard error	Critical ratio	P
H1	Financial factors	Perceived risk	0.309	0.09	3.548	0.000
H2	Financial factors	Perceived return	0.099	0.165	0.886	0.375
H3	Psychological factors	Perceived risk	0.523	0.104	6.112	0.000
H4	Psychological factors	Perceived return	0.49	0.189	4.447	0.000
H5	Social factors	Perceived risk	-0.099	0.085	-1.159	0.247
H6	Social factors	Perceived return	-0.03	0.046	-0.461	0.645
H7	Perceived risk	Attitude towards the brand	-0.042	0.202	-0.378	0.705
H8	Perceived return	Attitude towards the brand	0.235	0.136	2.206	0.027
H9	Attitude towards the brand	Willingness to invest	1.682	0.453	2.9	0.004

Results of the Table no. 6 show that financial factors, with the standard coefficient of 0.309, have a positive and significant impact on perceived risk. Hence, the first hypothesis is confirmed. Financial factors do not have a positive and significant impact on perceived return. Thus, the second hypothesis is not confirmed. Psychological factors, with the standard coefficient of 0.523, have a positive and significant effect on perceived risk. Thus, the third hypothesis is confirmed. In addition, psychological factors, with the standard coefficient of 0.49, have a positive and significant impact on perceived return. Hence, the forth hypothesis is confirmed. On the contrary, social factors have no positive and significant effect on perceived risk and, thus, the fifth hypothesis is not confirmed. Similarly, social factors have no positive and significant effect on perceived risk. Accordingly, the sixth hypothesis is not confirmed. Perceived risk has no positive and significant impact on attitude towards the brand. Therefore, the seventh hypothesis is not confirmed. Perceived return, with the standard coefficient of 0.235, has a positive and significant impact on attitude towards the brand. Thus, the eighth hypothesis is confirmed. Attitude towards the brand, with the standard coefficient of 1.682, has a positive and significant impact on investment intention. Hence, the ninth hypothesis is confirmed.

Testing the moderating role of brand awareness in the relationship of financial, social, and psychological factors with perceived risk and return is shown in Table no. 7.

Table no. 7 – Testing the moderating role of brand awareness

Hypothesis		Independent variable	Dependent variable	Standard coefficient, model 1	Standard coefficient, model 2	Standard coefficient, model 3
Financial factors	H10	Social factors	Perceived risk	0.658**	0.502**	0.863**
		Brand awareness		---	0.325**	0.882**
		Brand awareness × social factors		---	---	-0.806
		Significance of change in F statistic		0	0	0.068

Hypothesis		Independent variable	Dependent variable	Standard coefficient, model 1	Standard coefficient, model 2	Standard coefficient, model 3
	H11	Social factors	Perceived return	0.407**	0.21**	0.406
		Brand awareness		---	0.409**	0.712
		Brand awareness × social factors		---	---	-0.438
		Significance of change in F statistic		0	0	0.414
Psychological factors	H12	Psychological factors	Perceived risk	0.719**	0.623**	0.924**
		Brand awareness	Perceived risk	---	0.139	0.666
		Brand awareness × psychological factors	Perceived risk	---	---	-0.772
		Significance of change in F statistic		0	0.135	0.107
	H13	Psychological factors	perceived return	0.529**	0.337**	0.448
		Brand awareness	perceived return	---	0.279**	0.473
		Brand awareness × psychological factors	perceived return	---	---	-0.284
		Significance of change in F statistic		0	0.013	0.623
Social factors	H14	Social factors	Perceived risk	0.216**	0.129	0.878**
		Brand awareness	Perceived risk	---	0.546**	1.199**
		Brand awareness × social factors	Perceived risk	---	---	-1.085**
		Significance of change in F statistic		0.026	0	0.022
	H15	Social factors	perceived return	0.067**	-0.015	-0.041
		Brand awareness	perceived return	---	0.513**	0.49
		Brand awareness × social factors	perceived return	---	---	0.038
		Significance of change in F statistic		0.495	0	0.941

** *Significant at 5% level*

In the tenth hypothesis, the interactive effect of financial factors and brand awareness on the perceived risk is not significant. However, brand awareness has a significant impact on perceived risk. Thus, the variable of brand awareness has no moderating role in the relationship between the financial factors and perceived risk. Accordingly, the tenth hypothesis is not confirmed.

In the eleventh hypothesis, the interactive effect of financial factors and brand awareness on perceived return is not significant. Moreover, brand awareness has no significant effect on perceived risk. Therefore, change in the value of F-statistics or change in F^2 should be considered among different models. Since the addition of brand awareness variable to the regression equation has led to significant change in the F-statistics, this variable is not moderator. Thus, brand awareness variable has no moderating role in the relationship between financial factors and perceived return. Hence, the eleventh hypothesis is not confirmed.

In the twelfth hypothesis, the interactive effect of psychological factors and brand awareness on perceived return is not significant. Likewise, brand awareness also has no effect on perceived return. In this regard, the significance of change in F-statistics or F^2

should be evaluated among different models. Since the change of this statistic is not significant, it can be said that brand awareness variable has no moderating role in the relationship between psychological factors and perceived risk. Therefore, the twelfth hypothesis is not confirmed.

In the thirteenth hypothesis, the interactive effect of psychological factors and brand awareness on perceived return is not significant. In a similar way, brand awareness variable has no significant effect on perceived return. Therefore, change in the value of F-statistics or change in F^2 should be considered among different models. Since the addition of brand awareness variable to the regression equation has led to significant change in the F-statistics, this variable is not moderator. Thus, brand awareness variable has no moderating role in the relationship between psychological factors and perceived return. Therefore, the thirteenth hypothesis is not confirmed.

In the fourteenth hypothesis, the interactive effect of social factors and brand awareness on perceived risk is not significant. However, brand awareness has a significant effect on perceived risk. Thus, this variable is a pseudo-moderator one. In other words, brand awareness has a moderating role in the relationship between social factors and perceived risk. Accordingly, the fourteenth hypothesis is confirmed.

Finally, in the fifteenth hypothesis, the interactive effect of social factors and brand awareness on perceived return is not significant. Similarly, brand awareness has no effect on perceived return. In this regard, change in the value of F-statistics or change in F^2 should be investigated among different models. Because the addition of brand awareness variable to the regression equation has led to significant change in the F-statistics, this variable is not moderator. In other words, brand awareness has no moderating role in the relationship between social factors and perceived return. Accordingly, the fifteenth hypothesis is not confirmed.

5. CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

Most economic theories are based on the premise that people act rationally in the face of economic events and consider all available information in the process of investment. This premise is the basis of efficient market hypothesis. Notwithstanding, researchers have questioned this basic hypothesis and uncovered evidence showing the absence of rational behavior in relation to the process of investment. Financial behavior is a new field that seeks to combine psychological and behavioral theories with traditional economic and financial factors in order to explain irrational decisions of investors. Hence, this study aimed at evaluating the model for financial behavior of the investors in the Tehran Stock Exchange with an emphasis on the brand. To this end, financial, psychological, and social factors were considered as the most important external factors which affect the behavior of investors; moreover, the impact of these factors on perceived risk and return, attitude towards the brand, and investment intention were tested with taking into account the moderating role of brand awareness.

In order to test the research hypotheses, first of all, normal distribution of the research variables was evaluated using Kolmogorov-Smirnov test. Then, to verify the reliability of the questionnaire's questions, the results of the first order confirmatory factors analysis were offered. The obtained results showed that all questions of the questionnaire are in a good condition. Finally, the research hypotheses were tested using path analysis method. The results showed that psychological factors have a positive impact on perceived risk and return. Financial factors have a positive effect on perceived risk but no effect on perceived return. The impact of social factors on perceived risk and return was not confirmed.

Perceived risk had a positive effect on attitude towards the brand. However, the impact of perceived return was not significant on attitude towards the brand. Moreover, attitude towards the brand had a positive effect on shareholders' investment intention. Finally, it was found that brand awareness has a moderating role in the relationship between social factors and perceived risk and return. However, its moderating role was not confirmed in the relationship between psychological and financial factors and perceived risk and return.

Based on the results of this research, all three categories of financial, social, and psychological factors can influence the behavior of investors in the Tehran Stock Exchange. Such results may, on the one hand, suggest that the Tehran Stock Exchange has a poor performance and, on the other, confirm the relatively irrational behavior of a major part of Iranian shareholders who, under different conditions and changes in the general conditions of society such as the volatility of macroeconomic indicators, national and international political upheavals, financial conditions of companies and so forth, show totally unpredictable buying and selling behaviors. Moreover, the results of testing hypotheses imply that psychological and social factors, compared with financial factors, may have a greater role in identifying the trends governing the behavior of investors in financial markets of Iran. Such a result is partly caused by general culture of Iranian society. Thus, many buying decisions including financial investment decisions in the complex economic system of Iran are influenced considerably by psychological characteristics and social situations that shareholders are faced with.

Based on the results of the study, the following recommendations can be offered. Supervisory entities in the Tehran Stock Exchange are recommended that focus largely on psychological and financial factors in order to prevent irrational behaviors among the investors. However, planning on social factors cannot be very helpful in preventing such behaviors. Shareholders in the Tehran Stock Exchange should be aware that in their buying and selling decisions, many investors are mainly influenced by psychological factors such as overconfidence, loss aversion, and so forth. Therefore, in order to have an optimal decision in buying and selling of shares and increase the profit, they had better make decisions based on psychological and personality traits. Among the brand-related indicators, attitude towards the brand, rather than brand awareness, has had a significant impact on the behavior of the investors in the Tehran Stock Exchange. Thus, it is recommended that managers spend the company's advertising budget in the financial markets in order to make the investors have a positive view towards the products of the company. Doing so, they can cause the investors to have a positive feeling towards the company's brand.

In addition, it is recommended that future researchers evaluate the effect of other factors such as economic conditions, political changes, cultural features, company's internal issues, variety of objectives, etc., on the financial behavior of shareholders.

Of the limitations of the study, it can be pointed out that owing to the lack of access to all shareholders of Iran Stock Exchange, only Tehran was selected as the study sample. Furthermore, short period of the sampling and inherent limitations of the questionnaire such as the reluctance of some respondents to cooperate are among other limitations of the study.

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