



Investigating the Relationship between Religious Attitude and Perceptual Errors in Stock Exchange Investors

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ABSTRACT

The perceptual error of the investors is one of the issues discussed in behavioral finance. The perceptual error is a wrong sensual or perceptual error. That is, what we see or hear does not match with the reality. Regarding the fact that the perception of individuals is affected by their worldview and beliefs and religious attitudes can also affect their viewpoint, in this study, the relationship between these two variables was investigated. The study used an applied-survey method. The instrument of the study was a questionnaire and the subjects of the study were 200 individuals who were randomly chosen from individual investors, the experts of investment institutes, stock brokers on stock exchange and stock exchange organization across the country (Iran) in 2016. The data were analyzed using SPSS software. After investigating the normality of the data, Pearson correlation formula was used to investigate the relationship between the variables in the form of 1 main hypothesis and 5 sub-hypotheses. The results indicated that there was no significant relationship between religious attitude and Perceptual error but there was a negative and significant relationship between religious attitude and overconfidence. There was also no significant relationship between religious attitude and hindsight, escalation of commitment, availability and randomness. Investigation of transposition of perceptual errors, using Friedman test, indicated that most of the errors were related to availability error and least of them were related to overconfidence error.

Keywords:

Behavioral Finance, Perceptual Errors, Religious Attitude, Investors.



1. Introduction

Most of the economic theories are based on the assumption that individuals act logically when dealing with economic events and consider all information in investment process. This assumption is the basic principle in Efficient Market Hypothesis (EMH). However, in the course of time, this assumption was questioned and there evidences indicating that the investors did not act logically in economic events (Dehqan, 2008). Economic Agents, in contrast to the neoclassic theories' assumption, do not act logically in behavioral patterns which may be due to their preferences or because of perceptual and cognitive errors. Irrational factors like emotions, culture, personality and religion play a major role in individuals' behavior in decision making in different situations. Behavioral finance patterns reveal how investors behave and how can their behaviors affect the financial market and investors can learn from these patterns how to act rationally and logically in economic events. In fact, the homology between emotion and decision making of the investors is the base of behavioral finance (Qolipour, 2009). Now that standard financial theory are challenged because of their inability in explanation of the anomalies in capital market and the behavioral finance paradigm is dominant, research and investigation on mental and behavioral topics of investors are of great importance, because, according to the experts and ideologists of this field, the main factor of the emergence of such anomalies in capital market is behavioral and mental issues of investors. On this basis, there were extensive investigations on different behavioral topics in top stock exchanges all over the world. In these studies, different behaviors of investors that might affect the market performance and market efficiency were investigated. In addition, religious attitude is of the most important factors that affect individuals' beliefs and can consequently affect their behavior because religion consists of guidance for life and also presents a system of beliefs and values (Kermani mamazandi and Danesh, 2011). Since, in countries like Iran in which the Islamic culture is dominant and this affects different aspects of people's life, the effect of religious attitudes on investors can also be investigated, because, regarding the prominent role of religion in people's life, ignoring this factor may lead to wrong or insufficient information. The purpose of the study was to investigate the relationship between religious

attitude and perceptual errors in investors of the stock exchange. After investigating the normality of the data, the relationship between religious attitude and perceptual errors was investigated using Pearson Correlation. The prioritization of the perceptual errors was also done by Friedman test. In the following, there will be presented: theoretical fundamentals, literature review, description of methods and instruments, results of the analysis and the conclusion section.

2. Literature Review

Behavioral Finance is a combination of economic and financial sciences and psychology that seeks to explain the anomalies in financial markets and individuals' decisions in systematic errors. There are many definitions of behavioral finance but there still is no comprehensive definition which is accepted by all experts. Shefrin states that behavioral science is the investigation of the effects of psychology on financial decisions in capital market (Raei and Fallahpour, 2004). The purpose of behavioral science is believed to be recognizing the effects of emotion on pricing that diverts the risk balance and risk perception (Nilchi et al. 2015). Lintner (1998) stated that behavioral finance tries to find out how to interpret and act on the basis of information in order to make structured investment decisions (Eslami bidgoli, 2008). Behavioral finance is important because it explains why and how some markets are not efficient (Sewell, 2010). Thus, behavioral science is a paradigm that challenges two basic standard financial hypotheses; rational economic human and efficient markets (maximizing expected desirability) and rational market. Based on these two hypotheses, Pompian (2006) classifies behavioral science into two categories:

Behavioral Finance Micro (BFMI) examines investors' behavioral biases the most famous of which are overconfidence, mental accounting, risk taking etc.

Behavioral Finance Macro (BFMA) studies the anomalies of the market and the phenomena that indicate the inefficiency of the financial markets. In fact, issues like over reaction, down the reaction, herding, price bubbles, and effectiveness of acceleration and reverse strategies are of this kind.

Perceptual Error is one of the most important issues in perception which has not been solved after a century of investigation. Perceptual error is a wrong sensual or perceptual behavior. That is, what we see or hear does not match with the reality. In other words,

when our perception of things and generally of affairs does not correspond to the real world we experienced a perceptual error (Irvani and Khodapanahi, 2001). In addition to the limitation of human rationality, there are errors and biases in decision making. Being aware of these errors and biases can be very helpful to managers and employees. These errors and biases are due to humans' inclination to shortcuts and over emphasis on experience, emotions, illusions, mental accounting and generally to a distance from reality. While some times these errors can have positive results, in most cases the results are not desired (Qolipour, 2007). Perceptual errors make many of the investors to put especial attention on investment of their funds. Since investors invest most of their funds in stock exchange, these errors are in some manners related to the kind of their investment. In assessing and measuring these errors, two categories of factors are considered: external factors that are related to physical stimulus and internal factors that are related to testable motivation which is being examined (Irvani and Khodapanahi, 2001). Psychologists realized that economic agents that use their mental beliefs are exposed to systematic errors (Hirshleifer, 2001). Behavioral patterns help to lower these errors and increase the market efficiency. In this study, overconfidence bias, availability bias, hindsight bias, escalation of commitment bias and randomness bias are investigated in the explanation of perceptual errors that are affected by (psychological) moods in normal and abnormal situations. Understanding these errors as cognitive and perceptual errors in investment and taking proper measures to surmount them, can potentially improve the investment results (Qolipour, 2009).

Overconfidence Bias is a kind of cognitive deviation which is aroused by self-deception of individuals and helps them keep up in tough competitive situations. In this mood, the individuals overestimate their knowledge and abilities (Qolipour, 2007). Overconfidence is one of the most important modern behavioral finance concepts that is of great importance in financial and psychological theories. Overconfidence leads to an overestimation of abilities and knowledge and an underestimation of risks and may give the individuals the feeling that they have control of events and problems while they do not. In most tasks, overconfidence can be observed in individuals but selecting the security is an important

task in which can be observed the most cases of overconfidence (Nofsinger, 2001). Overconfidence plays a major role in stock related transactions. The overconfident investors overestimate the accuracy of their own evaluation of a security than others' evaluations (Hirshleifer, 2001).

Hindsight Bias is the opposite of prediction. Hindsight bias is a term used in psychology to explain the tendency of people to overestimate their ability to have predicted an outcome that could not possibly have been predicted. Thus the number of individuals who correctly predicted the results of a football match after the match is always more than those before the match (Qolipour, 2007).

Escalation of Commitment Bias happens when an individual insists on making a decision which is proven to be wrong and the consequences of the decision also verify it is being wrong. Even if the individual is responsible for the failure, they insist on making the same decision to prove that the initial decision was not wrong (Qolipour, 2007). The reason may be that escalation of commitment is due to the irreversible cognitive and physical costs and also the feeling of the individual that in the past there were many investments on this specific decision. Other causes of escalation of commitment are justifying the wrong decisions to save one's positive face in the organization, estimation errors in the beginning of the project, underestimation of risk and failure and overestimation of success, perceptual defense and ignoring the negative information (Saadi et al., 2010).

Availability Bias is the inclination of the individuals to decide and judge based on the available information (Kahneman and Tversky, 1982). The Human mind is inclined to come up with a quick result using the existing and available information. Not only does the available information cause perceptual biases in decision making, but also the manner of presentation of the information affects the perception (Qolipour, 2007). Thus, individuals often deviate from rational economic behavior, because in this case, they lack the capability to process mass data which is required for a rational economic decision (Montier, 2007).

Randomness Bias: Human perception is more or less affected by fortune and superstition. However, this is different in different cultures. For instance, in eastern countries, these beliefs are more dominant (Qolipour, 2007). Superstition and fortune are very

common in the stock exchange. The superstitious beliefs emerge when events that happen by mere chance are interpreted in different ways. That is, when human mind cannot explain the cause of an event rationally, it uses superstition to explain it. The repetition of these interpretations and their becoming normal and ordinary deprives human minds of rational decision making, thus individuals gradually confirm and approve the past superstitions and make superstitious decisions (Saadi et al., 2010).

Religious Attitude is a divine gift to humans that armed them with a philosophy of life, enlightened their mind, emphasizes the willpower and train it, helps humans to be rational, it helps the realization of the spiritual needs particularly the need to love and eternity and this is why religious beliefs are rooted in human life (Khodayarifard et al., 1997). The absence of original religious beliefs opens the door to internal and psychological conflict, feeling emptiness, purposelessness and hopelessness against limitations, adversities and mental and psychological pressure (2001).

Religious behaviors and beliefs have a positive effect in making the life meaningful. Behaviors like trusting in God, worship, pilgrimage etc. can provide peace of mind by creating hope and encouraging positive attitudes. Other factors that help religious individuals to suffer less in stressful events of life are having a purpose and meaning in life, feeling of belonging to a sublime source, being hopeful to Gods guidance and help, enjoying social and spiritual support etc. (Yang and Mao, 2007). Wilde and Joseph (1997) concluded that 20-60 % of adults' psychological health can be explained by religious attitudes. In another study with 1650 subjects and an average age of 50, Winfield (1995) concluded that there is a positive relationship with psychological health and religious attitude. The results of these and other studies reveal the importance of religious attitude in individuals behavior and thus it seems that religious attitude can be labeled as a personality trait and its relationship with other behavioral structures must be studied. On the other hand, people's decisions (with any belief and thought), somehow depends on their thoughts and beliefs (Azizi, 2011). so, people also decide based on their individual analysis. as a result, the worldview of deciders is different, considering their school and as a consequence, their decisions would be on different bases. plus worldview, purpose

also effects the decisions. since, purposes of every school, influences that knowledge as a goal for that and has an important role in educating and researching in that area, accepting or refusing Islamic goals, has major effects on that knowledge (Khandan, 2007). for example, changing purpose from more benefits to increasing growth, and Islamic teachings leads to changes in systematic decisions (Razini and Azizi, 2015).

Since the effects of religious beliefs and attitude on personal decision making are undeniable, and the effect of perceptual errors on investors' decision-making is proved, it seems necessary to investigate the relationship between religious attitudes and perceptual errors in stock exchange investors.

A background checks showed that Simon (1995) in a study titled "a behavioural model of rational choice" questioned the concept of economic human and designed a model for individuals' decision making. He concluded that individuals make decisions according to some limitations. The limitations may be originated externally or from internal biases of the investor.

Shiller (2000) did a psychological investigation of actions, speeches, and behavior of investors and finally concluded that investors have a high inclination to herding behavior. In other words, these individuals try to follow the guidance of some other person who, in their opinion, is more knowledgeable and consequently stock markets increasingly face price bubbles and anomalies and rise and falls.

Ritter (2003) investigated the psychological factors in decision making among investors. The results indicated that there is a positive and significant relationship between investors' decisions and psychological factors like disposition effect, mental accounting, representativeness effect, and conservatism.

Aqaei and Mokhtarian (2004) in a study titled "investigating the effective factors on investigators' decision making in Stock Exchange of Tehran, Iran" investigated the relationship between financial and non-financial criteria on investors' decision-making. The results of this study indicated that in addition to financial criteria, investors' decisions are affected by other non-financial criteria like risk level, consultation and recommendations of stock brokers and the managers of the company and also there is little inclination to deals with high-risk level.

Rogers (2006) regarding the acceptance of phenomena, classified the members of a society to 5 categories: innovators, early adopters, early majority, late majority, and laggards. The results of this study revealed that early adopters are the stimulus engine of decision making for buying stocks in the capital market. In other words, individuals with high levels of risk taking follow the phenomena that will be norms in near future. Finally, he concludes that the personality of investors has a positive relationship with the selection of approach and time of entering the stock trades.

Dehqan (2008) in a study titled "psychological factors affecting the investment intention in Stock Exchange of Tehran, Iran" investigated factors like biorhythm, inherent analysing ability, risk taking level, obtaining a reputation as investor and the ability to match one's image to company's image that can be effective in investors intention of buying stocks. The results indicated that, firstly, psychological factors have great effects on investors' decisions to buy stocks in Tehran Stock Exchange and, secondly, factors like inherent analysing ability, high level of risk taking and having the reputation of an investor have greater effects than biorhythm and the ability to match one's image to company's image.

Villatoro (2009) investigated the relationship between herding behavior and the reputation of the managers and concluded that there is a negative relationship between them. That is, managers with high reputation tend to on their own information vice versa and managers with lower reputation tend to demonstrate more herding behavior.

Mahzoun (2009) in a study titled "investigating the relationship between individual, occupational and personal characteristics and common behavioral biases among investors and activists in capital market" investigated the behavioral errors and biases among managers and experts of financial institutions in capital market and specified the relationship between recognized biases and individual occupational and personal characteristics of testable. The results indicated that even professional investors in financial institutions are not free of behavioral biases in their decisions and sex, age, experience, education, monthly revenue, capital, and personality type have significant effects on prediction of some systematic errors in judgment including overconfidence, illusion of control, mental accounting, self-control, optimism,

self-conformity, anchoring adjustment and representativeness bias.

Saadi et al. (2010) investigated the relationship between personality patterns and perceptual errors among the investors in Tehran Tock Exchange. He results of this study indicated that there is a high correlation between personality and perceptual; errors of decision making among investors.

Lashkari and Mortazi (2010) in a study on behavioral finance and its effects on the size of individuals' investment in Tehran Stock Exchange investigated the relationship between four variables of self-confidence, reputation, logical analyzing ability and biorhythmic factors. According to these variables, a questionnaire was designed in two parts and the research variables were investigated using the Likert scale. The results of the study indicated that there is a positive relationship between investment size and self-confidence and there is a negative relationship between investment size and individuals' logic. That is, investors do not always decide logically and rationally.

Saeidi and Mashayekhi (2011) investigated the relationship between lunar phases and market returns in Stock Exchange of Tehran, Iran. In this research, linear regression (OLS) and comparison of average return in new moon and full moon cycles were investigated. They came up with the conclusion that lunar does not affect daily Tehran Stock Exchange market return. For acquiring further evidence, daily average market return in periods of 5, 7 and 15 days around the full and the new moon was compared, but no significant difference was approved. Furthermore, there is no significant difference between Tehran Stock Exchange market returns in full moon and new moon cycles.

Kr'uger et al. (2012) investigated the effects misclassification bias on the price of financial assets. In this study, it was stated that some individuals in capital market tend to have a mental classification of the companies based on their industry. The investors, who focus on the companies' official SIC industry, ignore the basic information about the companies. This assumption will lead to a wrong prediction of the future process of company stock and consequently lead to an incorrect rating of the stock prices.

Fallahshams et al. (2012) investigated the effects of locus of control on perceptual errors in decision making among investors in Tehran Stock Exchange.

The data were collected using a questionnaire from randomly selected participants. The target population of this study included all the individual investors of the stock exchange, brokerages and mutual funds of Tehran Stock Exchange. The hypotheses of the study were examined using structural equation modeling. The results revealed that there is a relationship between job satisfaction, efficiency, positive work experience and stress and perceptual errors but there is no such relationship between management strategies and perceptual errors.

Jalili et al. (2014) investigated investment biases including mental accounting, loss aversion and representativeness bias and how these biases affect individuals' decision making. An individual investor must accept that emotions play a major role in investment decision makings. Thus, in this study, the relationship and correlation between emotional intelligence and its components and individuals investment decisions were investigated. 270 individuals were randomly selected from a sample population. The relationship between emotional intelligence and investment biases was examined, using 2 standard questionnaires. Pearson correlation test was run to confirm or reject the research hypotheses. The results indicated that there is a positive and significant relationship between emotional intelligence and investors' decisions.

Razini and Azizi (2015) in a research, studied the Islamic effects and approaches on deciding process and found out that attitude and Islamic and religious approach, effects the decisions.

Fernandes et al. (2015) investigated the uncertainty bias in individuals' financial decision making in Brazil. The results revealed the presence of this bias in individuals.

Bellouma and Belaid (2016) found out that working capital managers are likely to have the influence of heuristic driven biases, like high confidence level, loss aversion, self-serving biases, and anchoring. These results show that working capital managers are prone to behavioral biases when they take their decisions.

Winnie et al. (2017) the results indicate that investor behavior influences portfolio performance with herding and disposition effect have a positive effect on portfolio performance while overconfidence has a negative effect on performance.

3. Methodology

Hypotheses

There was one main hypothesis and five sub-hypotheses in this study. The hypotheses were as follows:

Main hypothesis

there is a significant relationship between religious attitude and perceptual errors among stock exchange investors.

Sub-hypotheses

- ✓ There is a significant relationship between religious attitude and overconfidence bias among stock exchange investors.
- ✓ There is a significant relationship between religious attitude and hindsight bias among stock exchange investors
- ✓ There is a significant relationship between religious attitude escalations of commitment bias among stock exchange investors.
- ✓ There is a significant relationship between religious attitude and availability bias among stock exchange investors.
- ✓ There is a significant relationship between religious attitude and randomness bias among stock exchange investors.

In all research hypotheses, null hypothesis means that there is no relationship between religious attitude and perceptual and errors including overconfidence, hindsight, escalation of commitment, availability and randomness biases. Accepting the null hypothesis (rejecting the alternative hypothesis) means that there is no relationship between religious attitude and perceptual and errors including overconfidence, hindsight, escalation of commitment, availability and randomness biases and rejecting the null hypothesis (accepting the alternative hypothesis) means that means that there is a significant relationship between religious attitude and perceptual and errors including overconfidence, hindsight, escalation of commitment, availability and randomness biases.

Research method

The current study was an applied research because the purpose of an applied research is to develop the applied knowledge in a specific field. In other words, applied research is directed toward the scientific

application of knowledge and the results of these researches can contribute to better decisions (Sarmad et al. 2007). Regarding data collection method, this study is a descriptive survey research. The initial data collection methods in this study were a combination of library and field research. In library research, the framework of the topic was provided by reviewing the related literature and in field research, using questionnaire instrument, the required data for the investigation of the topic were collected. To examine the religious attitude the questionnaire prepared by Muhamad and Devi (2006) was used which was designed to be used in Islamic countries. This questionnaire was developed based on the researches of Wild and Joseph (1997) and Khashan and Kreidie (2001). To examine the perceptual errors the questionnaire designed by Saadi et al. was used. Gathering the questionnaires is done in 2016.

Likert scale was used in these questionnaires with 5 options: strongly agree, agree, uncertain, disagree and strongly disagree. The questionnaires were used after the university professors' confirmation. That is, face and content validity of the questionnaires were confirmed. The Validity of an instrument is the extent to which a measurement instrument is well-founded and corresponds accurately to the purpose of the study (Khaki, 2008).

Data collection was done both in-person and virtual. In in-person data collection, the researches attended available stock halls and had the questionnaires completed. In virtual mode, after designing the questionnaire in Google forms, it was sent to active brokerages all over Iran. Alpha Cronbach's formula was used to assess the reliability of the questionnaire. To calculate the Alpha Cronbach's Coefficient, initially, the variance of scores of each sub-test and then the total variance should be calculated and then the Alpha Coefficient can be calculated using equation 1 (Seif, 2003).

Equation (1)
$$r_a = \frac{J}{J-1} \left(1 - \frac{\sum S_j^2}{S^2}\right)$$

Where r_a is the test validity coefficient, j is the number of subtests, S_j^2 is j^{th} subtest variance, S^2 is test variance.

The result of calculating Alpha Cronbach's coefficient of the questionnaires in SPSS is presented in table 1.

Table 1. The reliability of the research questionnaires

Component	Alpha coefficient
Religious attitude	0.898
Perceptual errors	0.82812

According to the results of the table 1, the questionnaires are reliable.

In analyzing the collected data and converting the qualitative data to quantitative data, weighting method was used. The formula to calculate the score of each test is presented in equation 2.

Equation (2)

$$\text{component score} = \frac{\text{sum}(\text{the score of each level} \times \text{its frequency})}{\text{number of respondents}}$$

Population and Sample

The target population of this study was all the individual investors, experts of financial institutions, stock brokerages and stock exchange organization. Since the availability of the target population is usually impossible, accidental or convenience sampling was used. Equation 3 was used to estimate the sample size.

Equation (3)

$$n = \frac{z\left(\frac{\alpha}{2}\right)^2 \times p(1-p)}{\epsilon^2}$$

Where P is the estimated variable attribute ratio, Z is the normal variable corresponding to 95% onfidence interval; ϵ is the acceptable error (0.07)

Thus, the sample size will be :

$$n = \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.07)^2} = 196$$

The participants of this study were 200 individual investors and experts in financial institutions and stock brokerages and stock exchange organization. The participants included 163 men (81.5%) and 37 women (18.5%). The education level of the participants ranged from high school to MA and they were from different majors. The average age of the participants was 41.2 with standard deviation of 11.18 and working experience of 10.51 years with standard deviation of 8.1.

Data Analysis

Descriptive statistical indices including frequency, average and standard deviation (SD) were used to describe the sample and inferential statistic tests were used to examine the research questions. Pearson correlation was used to investigate the relationship between religious attitude and perceptual errors and Friedman test was used for the prioritization of the perceptual error.

4. Results

Investigating the Relationship between Religious Attitude and Perceptual Error

Before investigating any relationship between the research variables, the normality of the data must be examined. If the data are distributed normally, the parametric Pearson correlation test can be used but otherwise non-parametric Spearman correlation test must be used. In table 2, skewness and kurtosis related to each part of the questionnaire are presented to examine the normality.

Table 2. skewness and kurtosis related to each part of the questionnaire

Variable	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Religious attitude	0.548	0.172	-0.467	0.342
Perceptual errors	0.178	0.172	-0.707	0.342

Since the skewness of all variables is in (-2, 2) interval, all variables are normal and the distribution of data is symmetrical. The kurtosis of the variables is also in (-2, 2) interval which means the distribution of the data enjoys normal kurtosis. Thus, since the data are normally distributed, parametric Pearson correlation can be used.

Main Hypothesis

The results of the correlation investigation between religious attitude and perceptual errors are presented in table 3.

The results, presented in table 3, indicate that because the significance level is higher than 0.05 (0.936>0.05) the null hypothesis in 95 % confidence interval is approved. That is, there is no significant

relationship between religious attitude and perceptual errors.

Table 3. The results of the correlation investigation between religious attitude and perceptual errors

Variable	Perceptual errors	
Religious attitude	Frequency	200
	Correlation coefficient	0.006
	Significance level	0.936

First Sub-hypothesis

The result of the correlation between religious attitude and overconfidence bias is presented in table 4.

Since the significance level is lower than 0.05, the null hypothesis in 95% confidence interval is rejected. That is there is a negative relationship between religious attitude and overconfidence bias.

Table 4. the correlation between religious attitude and overconfidence bias

Variable	Overconfidence	
Religious attitude	Frequency	200
	Correlation coefficient	-0.168
	Significance level	0.008

Second Sub-hypothesis

The Result of the correlation between religious attitude and hindsight bias is presented in table 5.

Since the significance level is higher than 0.05, the null hypothesis in 95% confidence interval is approved. That is, there is no significant relationship between religious attitude and hindsight bias.

Table 5. The result of the correlation between religious attitude and hindsight bias

Variable	Hindsight	
Religious attitude	Frequency	200
	Correlation coefficient	0.035
	Significance level	0.626

Third Sub-hypothesis

The result of the correlation between religious attitude and escalation of commitment bias is presented in table 6.

Since the significance level is lower than 0.05, the null hypothesis in 95% confidence interval is approved. That is, there is no significant relationship between religious attitude and escalation of commitment.

Table 6. The result of the correlation between religious attitude and escalation of commitment bias

Variable	Escalation of commitment	
Religious attitude	Frequency	200
	Correlation coefficient	0.11
	Significance level	0.873

Fourth Sub-hypothesis

The result of the correlation between religious attitude and availability bias is presented in table 7.

Since the significance level is higher than 0.05, the null hypothesis in 95% confidence interval is approved. That is there is no significant relationship between religious attitude and availability bias.

Table 7. The result of the correlation between religious attitude and availability bias

Variable	Availability bias	
Religious attitude	Frequency	200
	Correlation coefficient	0.107
	Significance level	0.132

Fifth Sub-hypothesis

The result of the correlation between the religious attitude and randomness bias is presented in table 8.

Since the significance level is higher than 0.05, the null hypothesis in 95 % confidence interval is approved. That is, there is no significant relationship between religious attitude and randomness bias.

Table 8. The result of the correlation between the religious attitude and randomness bias

Variable	Randomness	
Religious attitude	Frequency	200
	Correlation coefficient	0.079
	Significance level	0.266

Prioritization of Perceptual Errors

Friedman test was used to prioritize the perceptual errors. The Average score of perceptual errors and results of Friedman test are presented in table 9 and 10, respectively.

Table 9. the average score of each perceptual error

Perceptual error	Average score ranking
Overconfidence	1.90
Hindsight	2.88
Escalation of commitment	20.63
Availability	4.37
Randomness	3.23

Table 10. Friedman test results in relation to perceptual errors

Number	Chi-square statistic	Degree of freedom	Significance level
200	373.234	4	0.000

As it can be observed in table 10, the test significance level is 0.009 which means the null hypothesis is rejected. According to the above outcomes, the priorities perceptual errors are different. Accordingly, availability bias is the most common and in the second position is the randomness bias and still, the third one is hindsight bias. Escalation of commitment and overconfidence biases are in fourth and fifth position, respectively.

Analysis of the Hypotheses Test

According to the results, there is no significant relationship between religious attitude and escalation of commitment, hindsight, randomness and availability biases. However, there is a significant and negative relationship between religious attitude and

overconfidence bias. That is as the religious attitude increases, overconfidence bias decreases. Overconfidence bias happens when individuals overestimate their abilities and knowledge (Chen et al., 2013). Overconfidence bias is originated from the arrogant and presumptuous personality of individuals. Amid Persian dictionary also translated arrogance as self-aggrandizement. In Moral terms, arrogance means that humans consider themselves better than others (Feiz kashani, 2007). Arrogance is regarded as an indecent trait in Islamic and religious instructions. Thus, the negative relationship between religious attitudes and overconfidence bias seems to be logical and rational.

5. Discussion and Conclusion

Regarding the fact that Islamic culture is rooted in Iranians lifestyle, planning and decision making without taking into account the role of religion will lead to undesirable results. The behavioral finance knowledge is not an exception. In this study, according to the undeniable effect of religious attitude on all aspects of individuals' lives and prevalence of perceptual errors among stock exchange investors, the mutual effects of these variables were investigated. For this purpose, a questionnaire was given to 200 individual investors. Although perceptual errors have been investigated frequently, to have an accurate understanding of the effective factors, the studies needed to be localized and the religious factor should have been investigated as an independent variable for its effects to be clear, because the Islamic culture plays an undeniable role in society and it seems rational to expect the effectiveness of religious attitude in investors' decision making. Although we didn't find a fully matching research in this area, but results of relation between religious attitude and deciding is compatible with Razini and Azizi (2015) research and in behavioral factors in choosing and deciding is compatible with Simon (1995), Shiller (2000), Ritter (2003), Aqaei and Mokhtarian (2004), Rogers (2006), Dehqan (2008), Villatoro (2009), Mahzoun (2009), Lashkari and Mortazi (2010), Fallahshams et al. (2012), Kr'uger et al. (2012), Jalili et al. (2014), Fernandes et al. (2015), Bellouma and Belaid (2016) and Winnie et al. (2017).

The limitations of this study were the conservatism of some respondents in answering the questions and lack of sufficient motivation in some respondents. In

addition, since this subject has received little attention, it is necessary to put more emphasis on it and investigate other aspects of religious and Islamic attitude with financial and investment markets to clarify the related concepts.

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