



Investigating the Effects of Financial Behavioral Traps on the Decision Making Quality of Investors (Case Study: Investment Enterprises Accepted in the Tehran Stock Exchange)

Seyed Hossein Sajjadi^{1*}, Ali Asgar Lotfi²

¹Department of Financial Management, Shahre-Qods Branch, Islamic Azad University, Tehran, Iran. ²Department of Financial Management, Islamshahr Branch, Islamic Azad University, Tehran, Iran, *Email: lotfi@iaiu.ac.ir

ABSTRACT

The objective of this research is to investigate about the effects of financial behavioral traps on the decision making quality of investors in the investors of Tehran Stock Exchange. This study is practical and in terms of research methodology is descriptive and correlation. The statistical population of the study includes all managers who are working in the Tehran stock brokers that the sample in question according to its number selected 84 persons. For data collection questionnaires of Samadi et al. financial behavioral traps and questionnaire of investment perceptual errors made by Gholipour have been used. After gathering data the analysis of data were done by using descriptive and inferential statistics. Results of regression tests indicate that all aspects of behavioral financial traps include “greed,” “escape from loss,” “being hasty” and “escape from regret” affecting the quality of investor decision making significantly.

Keywords: Aspects of Behavioral Financial Traps, Decisions of Investors, Exchange, Perceptual Errors, The Quality of Decision-making, Investment

JEL Classifications: E37, E32, C53, C5

1. INTRODUCTION

Analysis of the behavior of investors in financial literature has long been interpreted based on classical theories of economic utility theory and the theory of competition. Based on the fundamental principles of utility theory which was developed by Tan et al. (2007), an investor has three features, (A) He is completely rational and will make logical decisions, (B) he is able to solve complex issues, (C) he escapes from taking risks, always attempts to increase his wealth in desirability theories is assumed that an investor according to give and take and relationship between risk and return wants to maximize his satisfaction from the selected combination of investment. The assumption of competition theory in comparison with desirability theory is more realistic.

The actual behavior of investors in the stock exchange in some cases undermines the theory of maximizing desirability and other classic theories. Therefore the theory of “behavior” had considered

in financial issues. Although theories of behavioral finance is new but the psychological and behavioral characteristics intervention in decisions of purchase much earlier were discussed by scientists such as: Adam Smith, Irving Fisher (animal spirits in the stock market), John Maynard Keynes (self-control, prudence and habits of persons) and Harry Markowitz (reference points). Behavioral finance focuses on how to interpret and use information in the investment decision process and describing the many unusual and irrational behavior on the market. Behavioral finance has been defined as “The rapidly growing field that has the effect of psychology on the behavior of market actors “by Hirshleifer and Hong (2001). In recent years behavioral finance research had more progress and these studies searches to find answer to these questions: Explain of price bubble in the capital market, the volume of transactions in the market and sharp price fluctuations. The difficulty of valuing stock, the high sensitivity of stock prices in the face of bad news, company senior management attitudes and opinions about the company’s low stock market prices relative

to intrinsic value. Received a share of the market despite a lack of evidence (Penning, 2003). Respond to majority of these cases is dependent on understanding the behavior of investors in the capital market. Certainly understanding the behavioral process and its implications for financial planners is of great importance. Because that a correct understanding of the behavior of investors in the market can market to financial planners in developing strategy, mobilization and allocation of funds will help. Overall, the empirical evidence derived from studies in capital markets reflects the fact that investors and their behavior is very complex decision-making process and ability to provide a single pattern to predict their behavior in the market would not be easily possible. Many cases the rational behavior of investors in the stock is not possible to identify behavioral incentives. Optic-color comes from these cases is that investment decisions are not only influenced by economic indicators and rationality. But other factors also have an influence on the behavior and their decisions, and some of these factors are known as behavioral finance traps. According to theory of forecasts of expected returns four aspects from dimensions of investor behavior are considered as traps of behavioral finance and they can influence decision making of investors. Kim and Nofsinger (2008) states the traps of financial behavior as following: (1) Gred, (2) the escape of regret, (3) being hasty and (4) escape from loss (Penning, 2003).

Fallah Shams et al. (2008) conducted a research with title “The effect of perceptual errors in the control focus over investment decision in Tehran Stock Exchange and investigated the impact of psychological factors and behavioral factors (psychological) on rational and irrational decisions, investors in the stock.” They concluded that behavioral and psychological factors on cognitive errors influence investors. Lashgari and Mortazi (2011) in a research investigated the behavioral finance theory and its impact on the volume of investment in the Tehran Stock Exchange. This study states that the idea of perfect rational behavior of investors in the stock market is not sufficient to justify their behavior. Existence many psychological factors that people are perfectly rational in their investment decisions not function. Gholipour (2010) in a research with title explaining the relationship between personality types perceptual errors made by investors in the Tehran Stock Exchange. In this study perceptual errors made significant relationship with investment personality. The results of this study indicate that between extraversion and openness with hindsight bias and overconfidence, between neuroticism with random error, there is a direct relationship and access escalation of commitment. Also, the compatibility and conscientiousness with random error and there is an inverse relationship between openness and availability bias.

Romano (2015) in a study investigated relationship between costs of stock exchanges and the incidence of herding behavior. His studies have suggested that high transaction costs were causing herding behavior among managers. While low transactions costs not to follow this trend. And even very low transaction costs was caused by investment managers, measures that are distinct from investors with small investment (Romano, 2015). Cheng and Lin in 2015 in a study to examine the effects of national culture and behavioral problems existence herding

behavior of investors on the international stock markets began. Their results showed that herding behavior in the markets and fewer complexes confusian occurs and also some cultural factors in the formation of herding behavior is effective. Since the stock exchange as one of the nation’s financial markets play an important role in the country’s economy and how to decide if a stock investment trends in the market form. Identify factors affecting the quality of investment decisions is important. Given that animal behavioral finance can be a factor influencing investors’ decisions on the stock exchange in this article, the impact on the quality of animal behavioral finance investors’ decisions will be discussed. So the central question is whether aspects of animal behavioral finance research on the quality of investors’ decisions to invest in enterprises accepted in Tehran Stock Exchange effective?

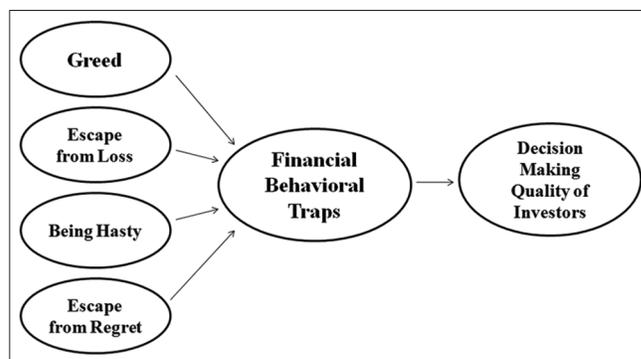
2. CONCEPTUAL MODEL OF RESEARCH

In order to explain the purpose of dimension theory predicts the expected returns (being greedy, being impatient, and being adverse regret, loss of escape) was used. The conceptual model is shown in Figure 1.

3. MATERIAL AND METHODS

The research method is descriptive survey and in terms of objective is applicable. The statistical population of study consists of all managers in the stock who they are serving at Tehran Stock Exchange. According to the latest information the number of these agencies is 107. After performing statistical calculations proper sample size of 84 patients was calculated with 95% confidence which the number was chosen randomly from the population. For data collection questionnaires of Samadi et al. financial behavioral traps was used this questionnaire evaluates adverse influence on decision-making behavior of individual shareholders in stock in the form of four dimensions of financial traps such as “greedy,” “being hasty,” “escaping from regret” and “escape from loss” and has 20 items and gathers the answers according to five-point Liker spectrum. Also the questionnaire of perceptual errors of Gholipour (2010) which consisted of 24 item in five-point Likert spectrum were used. The validity was confirmed by experts and reliability of the questionnaire was approved by Cronbach’s alpha. Statistical analysis included descriptive statistics and inferential statistics that

Figure 1: Conceptual model



in descriptive statistics, table of frequency distribution, percentages and charts with central and dispersion parameters were used. In inferential statistics multivariate regression techniques were used for the effectiveness of variables. To evaluate the normality of data the single sample of Kolmogorov–Smirnov test was used. SPSS software was used for data analyzing.

4. RESULTS

4.1. Normality Test of Data

To evaluate the normality of data one sample Kolmogorov–Smirnov test was used.

Based on the results obtained from testing the normality of the data in Table 1 it is specified that because obtained significance for variables of the study is more than 0.05, then the variables of the research are normal. Thus we can use parametric tests (including regression) to investigate the hypothesis of the study.

4.2. Normality of the Distribution Errors

To evaluate normality of the distribution errors the comparison chart dispensing errors normal curve were used. According to the comparison chart showed that the distribution of errors is normal and can be used regression test (Table 2). The normality of error distribution in main hypothesis.

According to results of Table 2 given that the obtained t-statistics for four variables of greedy (t - 4.097), hasty (t - 3.136), escape from regret (t - 2.077), escape from loss (t - 3.112) is meaningful in the level error <0.05 therefore each 5 variable are effective in the investment quality decision making.

Table 1: Evaluating the normality of the data

Variable	Z-statistics	Significance	Result
Greedy	0.218	0.212	Normal
Hasty	0.642	0.814	Normal
Escape from regret	2.128	0.436	Normal
Escape from loss	1.310	0.228	Normal
Perceptual errors	1.847	0.118	Normal

Table 2: Regression coefficients

Predictor variables	Not standard B coefficients		Standardized beta coefficients	t	Significant
	B	Standard error			
Fixed value	11.655	2.720	-	4.285	0.000
Greedy	0.050	0.012	0.108	4.097	0.000
Hasty	0.049	0.016	0.213	3.136	0.002
Escape from regret	0.050	0.011	0.111	2.077	0.000
Escape from loss	0.048	0.013	0.115	3.112	0.002

Table 3: Summary of regression model

Model	Correlation coefficient	Determination coefficient	Adjusted determination coefficient	Standard error	Durbin–Watson statistics
1	0.756	0.708	0.703	1.878	2.087

Based on the results of the regression equation is defined as follows:

$$x_5 + 0.115x_4 + 0.111x_3 + 213.0x_2 + 108.0x_1 = 655.11 + 282.0Y$$

4.3. The Test of Errors Independence

Errors independence is one of the assumptions of regression tests that to verify it the Durbin–Watson test is used. The test statistic value in the range of 0-4, and if the value obtained is between 1.5 and 2.5 lack of correlation between errors is confirmed and we can the test of accepted regression. In this hypothesis, after the implementation of the Durbin–Watson d statistic value was equal to 2.048 then we can use regression test. Multivariate regression was used to examine the hypothesis that test results are given in Table 3.

The summary of regression model in Table 3 shows that the value of correlation coefficient @ has been equal to 0.756, between the independent variables (behavioral financial traps, greedy, hasty, escape from regret, escape from loss) and dependent variables (the quality of decision of investors) and shows the existing of mediate correlation among these variables. Also the amount of determination coefficient is equal to 0.703 and indicates that 70.3% of whole changes in quality of decision making of investors is dependent to five variables of behavioral finance traps hasty, greedy, escape from regret and escape from loss. In other words five independent mentioned variables are predicting 70.3% of variance of decision quality investment.

According to results of Table 4, the value of test statistics (f = 31.167) is significant in the error level <0.05. Therefore we can conclude that regression model of research that is a collection of five independent variable and one dependent variable, has been a proper model and a collection of independent variables are able to explain the independent variable. Then by 95% confident we can say that the main hypothesis of the research is accepted and the null hypothesis is rejected.

4.4. The First Subsidiary Hypothesis

The first subsidiary hypothesis is including: “Being greedy is effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.”

The H₀ hypothesis: “Being greedy isn’t effective on the quality of decision making of investors in the accepted firms in Tehran stock exchange”

H₁ hypothesis: Being greedy is effective on the quality of decision making of investors in the accepted firms in Tehran stock exchange.

According to obtained results in Table 4 given that obtained t statistics for being greedy variable (t = 4.097) in error level <0.05 significant, then this variable is effective on the variable of “the

Table 4: Regression model analysis of variance

Model	The whole mean	Degree freedom	Square mean	F	Significant
1	330.055	3	110.018	31.167	0.000

quality of decision making of investors, thus the null hypothesis is rejected and the first sub hypothesis is confirmed. as well as according to standard coefficients (beta) it specifies that ‘being greedy’ can only predict 10.8% of variable ‘the quality of decision of investors.’”

4.5. Second Subsidiary Hypothesis

The second sub-hypothesis includes “being hasty is effective on the quality of decision making of investors in the accepted firms in Tehran stock exchange.”

H₀ hypothesis: Being hasty isn’t effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

H₁ hypothesis: Being hasty is effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

According to results obtained in Table 4 given that the obtained t statistic for being hasty (t = 3.136) is meaningful in error level of 0.05. Then this variable is effective on the quality of decision making, thus the null hypothesis is rejected and the second sub-hypothesis is confirmed. Also according to standardized coefficients (beta) it specify that “being hasty” can only predict 21.3% from the variable “the quality of decision making of investors.”

4.6. Third Subsidiary Hypothesis

The third sub-hypothesis is including “escaping from regret is effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.”

H₀ hypothesis: Escaping from regret isn’t effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

H₁ hypothesis: Escaping from regrets effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

According to results obtained in Table 4 given that the obtained t statistic for being hasty (t = 2.077) is meaningful in error level of 0.05. Then this variable is effective on the quality of decision making, thus the null hypothesis is rejected and the third sub-hypothesis is confirmed. Also according to standardized coefficients (beta) it specify that “escaping from regret” can only predict 11.1% from the variable “the quality of decision making of investors.”

4.7. The Fourth Subsidiary Hypothesis

The fourth sub-hypothesis is including “escaping from loss is effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.”

H₀ hypothesis: Escaping from loss isn’t effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

H₁ hypothesis: Escaping from loss is effective on the quality of decision making of investors in the accepted firms in Tehran Stock Exchange.

According to results obtained in Table 4 given that the obtained t statistic for being hasty (t = 3.112) is meaningful in error level of 0.05. Then this variable is effective on the quality of decision making, thus the null hypothesis is rejected and the fourth sub-hypothesis is confirmed. Also according to standardized coefficients (beta) it specify that “escaping from loss” can only predict 10.8% from the variable “the quality of decision making of investors.”

5. DISCUSSION AND CONCLUSION

In reviewing the subsidiary hypothesis of the study we concluded that all aspects of behavioral financial traps that is “being greedy.” “Being hasty,” “escaping from regret” and “escaping from loss” by 95% confidence effective on perceptual errors of investing (P > 0.05) and this dimensions are effective on how to take decisions and their quality.

In the first sub-hypothesis test specified that greed is effective on investment perceptual errors. To explain this result we can say that if an individual becomes greed and at the time of decision making for investing expects more excessive profits most likely would not have rational behavior and this will cause to error in investing.

In the second sub-hypothesis test specified that hasty is effective on investment perceptual errors. To explain this result we can say that if an individual not have sufficient time for thinking at the time of decision making it is clear that would not take a proper decision. In other words being hasty at time of decision making for investing is a factor that causes an individual not acts logically.

In the third sub-hypothesis specified that escaping from regret is effective on perceptual error of investing. to explain this result we can say that a person who have the high sense of escaping from regret more likely has not the power for taking risks and he is doubtful in taking decisions, because he is always worry that would not take sufficient decisions thus ignores many decisions which they must be took in necessary time for investing and he would prefer to rely on current status.

In testing the third subsidiary hypothesis it was specified that escaping from loss is effective on investing perceptual errors. to explain this result we can say that people who have high sense of escaping from loss, they are less able to think about change in different investing especially about exchange or its buy and purchase and since they are worry about loss, more probably have lower power of risking. And this prevents them from being active and being flexible in investing. This causes that they less take decisions about buy and purchase of shares.

Generally the empirical evidence derived from studies in the investing markets indicating that the decision-making process of

investors is very complex and it is not easily possible to provide a single pattern to predict behavior in the market in many cases the behavior of investors is not rational and some behavioral incentives is effective on their behavior.

REFERENCES

- Cheng, C.H., Lin, S.J. (2015), The effects of national culture and behavioral pitfalls on investors' decision-making: Herding behavior in international stock markets. *International Review of Economics and Finance*, 37, 392-380.
- Falah Shams, M., Hagh, S.K.F., Afsharhajari, F. (2008), Effect of locus of control on perceptual errors in decision making of investors in Tehran stock exchange. *Journal of Investment Knowledge*, 3, 19-32.
- Gholipour, F. (2010), Explaining the relationship between personality types investors' perceptual errors in the Tehran stock exchange. *Journal of Financial Research*, 29, 41-58.
- Hirshleifer, D., Hong, T.S. (2001), Herd behavior and cascading in capital markets: A review and synthesis. *European Financial Management*, 9(1), 25-66.
- Kim, K.A., Nofsinger, J.R. (2008), Behavioral finance in Asia. *Pacific-Basin Finance Journal*, 16, 1-7.
- Lashgari, M., Mortazi, H. (2011), Behavioral finance theory and its impact on the volume of investment in Tehran stock exchange. *RAHBOARD Journal*, 5(4), 26.
- Penning, J.M.E. (2003), A behavioral decision making modeling Approach. *Journal of Behavioral Finance*, 4, 3-15.
- Romano, M. (2015), Institutional trades and herd behavior in financial markets. *Centre for Studies in Economic and Finance*, 115, 215-236.
- Tan, L., Chiang, T., Mason, J., Nelling, E. (2007), Herding behavior in Chinese stock markets: An examination of A and B shares. *Pacific Basin Finance Journal*, 11, 112-215.