International Academic Institute for Science and Technology

International Academic Journal of Accounting and Financial Management
Vol. 1, No. 1, 2014, pp. 79-87.

ISSN 2454-2350

International Academic Journal of Accounting and Financial Management

www.iaiest.com

Effect of Risk Perception and Risk Tolerance on Investors' Decision Making in Tehran Stock Exchange

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Abstract

The main purpose of this research is investigating the Effects of Risk Perception and risk Tolerance on Investors' Decisions Making in Tehran Stock Exchange in during time on July until April 2015. The statistical population included all professional and non-professional investors given that the community was not unlimited, the number of samples required was appointed research using Cochran formula 384 using simple random sampling method selected. The number of professional investors research, 108 legal brokers in Tehran Stock Exchange among the others were individual investors questioned. This study in terms of purpose is applied research and survey. Regarding the method of inference, this research is descriptive – analysis. data collection and measurement tools and methods was inventory derived from three valid sources that the independent variables and the dependent variable in the form of 30 questions has been prepared using Cronbach's alpha coefficient reliability were assessed. The validity of the questionnaire by expert teachers has approved. This study consists of two Hypotheses: the effects of risk perception and risk tolerance on Investors' Decisions in Tehran Stock Exchange. Assumptions of parametric tests including test, Pearson correlation coefficient between independent variables to study the effects and related research and multiple regressions to evaluate their effect has used. The results of the analysis showed that there is direct and positive relationship between the independent variables and assumptions on investors' decisions in Tehran Stock Exchange. The results showed the overall impact of variables risk perception and risk tolerance of investors' decisions in Tehran Stock Exchange .These factors can be combined with other factors such as personality and behavioural and psychological investors, attitude, financial and behavioural research will be the focus of researcher's attention.

Keywords: Risk Perception, Risk Tolerance, Investors' Decisions Making, Tehran Stock Exchange.

Introduction

Economical growth and development of a country requires being equipped with capital resources and its optimum allotment to components of economical activities. This requires the development of financial aspect of economy, especially expansion of capital market and in its head, bonds. Achieving this goal is not possible except with appropriate contextualization to encourage investors to participate in such markets. To this end, investors need information that based on them; they can evaluate the inherent risk and expected output of the invested capital and make decisions regarding purchasing, holding, or selling it. Therefore, it seems that the information related to decision making of investors in stock exchange investments, is considered as the most important information for the investors (Brigam Euginov & Co 2003).

Todays, investors for investing decisions, consider many factors. Based on the existing the strategies, investors` decision making are not done only based on technical and logical analyses. Without a doubt, identifying the effective factors in investors decision making and their prioritizing regarding their importance in decision making can provide a suitable ground to present satisfying services to investors and be considered as a qualified measure in the development of investment process in the country (Vadiei & Shokouhi Zadeh, 2011).

Lashkari and Mortazi in 2011, quoting Shahrabadi and Yusefi (2007), note that the field of emergence of behavior science in financial discussions is a new strategy regarding financial markets. This strategy attends the case that unlike standard financial debates and theories, cognitive and behavior orientations can affect prices of financial properties. Despite the numerous studies that have been conducted in this field, still many people lack the correct Perception of hidden concept in financial behavior. In this study has already done to investigate the effect of risk Perception and risk Tolerance on investors` decision making in Tehran Stock Exchange.

Research Problem, Importance and necessity of the research

Investors in capital market, weather they presses sufficient expertise in the field of investment in stock exchange or not, to make decision regarding selecting an option among the different ones available, they use special standards and factors that helps them in making a logical and rational decision (Panahiyan & Safa, 2009).

Aqayi and Mokhtariyan in 2014, quoting Schifer (2000), note that in most financial theories we assume that investors logically think of increasing their capital and pay attention to financial markers. Investors when selecting investment, primarily compare its risk and output with other potential investments that they can perform. Furthermore, risk level that investors are willing tolerate depends on their mental features and characteristics (conservative or venturous). At any rate, a logical investor in case of similar risk of two investments will not choose the one with lesser output. Most of the recent researches regarding financial psychology states that investor's decisions may be affected by internal behavior factors such as self knowledge and external behavior factors such as method selecting an investor.

Unlike the common paradigm in the classic financial theory which notes that decision makers have complete rational behavior and after maximizing their profits, conducted studies in financial behavior

field shows that human decision making is not a completely rational process with considering all the information, but decision maker employs mental shortcuts which may lead to non-optimal decisions.
Fallah Shams and Azizi in 2008, quoting Schifer (2000), note that the real behavior of investors in Stock Exchange in some cases questions maximizing desirability and other classic hypotheses. Therefore, Behavior hypothesis received attention in financial discussions. Although financial hypothesis is a new behavior and history goes back to a decade ago, the discussion of psychological characteristics and behavior of people are spoken of in purchase decision of the past like Adam Smith (self -supremacy), Irvying Fisher (animal spirit in stock exchange), John Maynard Keynes (self-control, being forethoughtful and Harry Markowitz (Reference Point). Therefore this need to investigate the effect of risk Perception and risk Tolerance which all of them have their roots in the behavior of investors in Tehran Stock Exchange.

Research Objectives:

1- To identify the Effects of Risk Perception on Investors' Decision Making in Tehran Stock Exchange

2- To identify the Effects of Risk Tolerance on Investors' Decision Making in Tehran Stock Exchange

Research Hypotheses:

1-There is significant effect between Risk Perception and Investors' Decision Making in Tehran Stock Exchange

2-There is significant effect between Risk Tolerance and Investors' Decision Making in Tehran Stock Exchange

Research Background

One of the most important researches conducted regarding Perception the investors` risk in stock exchange, which is presented with a subjective pattern of risk Perception, is one that is conducted recently by Fereydoun Rahanama Roudposhti, Ahmadnateq Golestan and Ahmad Yaqub Nejad in 2014. In this research It is stated that emotions, moods, and other factors of investors affect Perception and for this reason, they affect investors decisions. In this research the effective factors in risk Perception are investigated in detail.

Mohammad Lashkari and Homa Mortazi in 2011, in their research titles financial behavior hypothesis and its effect on the individuals` investment amount in Tehran stock exchange, proved that the idea of complete logical behavior of the investors is not sufficient to justify their behavior in stock exchange. The presence of numerous psychological factors leads to many people not performing completely logically in their investment decision makings.

Mahdi Abzari, Saei Samadi, and Hadi Teymouri in a research in 2008 investigated the effective factors in investment in Esfehan stock exchange, which in the conducted research the two variable categories related to investors` characteristics (risk Perception, risk desire, and capital allotment) and characteristics

related to capital market (expected output rate and past performances information) were investigated. Its results proved that, risk Perception affects desire for investment, expected output rate and capital allotment, and past performances information affects desire for investment and expected output rate.

Shahrabadi in 2006, attempted to introduce financial behavior field and presented its usage in stock exchange. Its result is that financial behavior and what is discussed in psychology, better introduces human behavior and notes that, no matter how logically a person is, in some cases he`ll have behavior outlet. These outlets cause limited recognition or deviation from reality and as a result lead to illogical or irrational reactions.

Investigating effective factors in investment in financial products (stock)in stock exchange were investigated in 2005 by Hadi Teymouri of Esfehan University. The results of the conducted research note that Perception the risk of investment affects desire for risk, expected output rate, capital allotment, and past performances information affect desire for risk expected output rate.

Longstuff (2005) showed that a great number of the properties have little liquidity and they always cannot be traded on the spot. In this research he has investigated the role of liquidity factor in properties` pricing. In stock exchange some properties have high liquidity, however, some other in relatively long periods are traded. Non-liquidity has a significant effect on portfolio decision making. He stated that the value of a property with high liquidity can be 25 percent higher than the value of a property without liquidity.

Dosca (2006) presented a model for liquidity behavior and non-stability of stock prices. In this model investors predict the recent changes in prices for changes in a property with risk. When the changes of a property are high, its conjugation is high and the flowing output of the property decreases. Output rate of the properties without risk is low and market is faces with non-liquidity.

One of the researches conducted for identifying effective factors on real investors` behavior, is a calibration which was conducted by Altamimi in UAE`s stock exchange. He categorized the effective factors in investors` behaviors into five groups. These factors include accounting and financial information, neutral information, partial advices, conformity of the image of the self. Company and personal needs of the investor. Research findings note that variables related to maximizing desirability such as growth of profitability, cash profit paid to stockholders and the predicted profit of each share, are the most important factor affecting intention of buying a stock in the market. Other findings of the research state that the general information of the market such as index process, trades condition in the market and published information by the company have direct effect on investors' expectations.

Research Conceptual Model

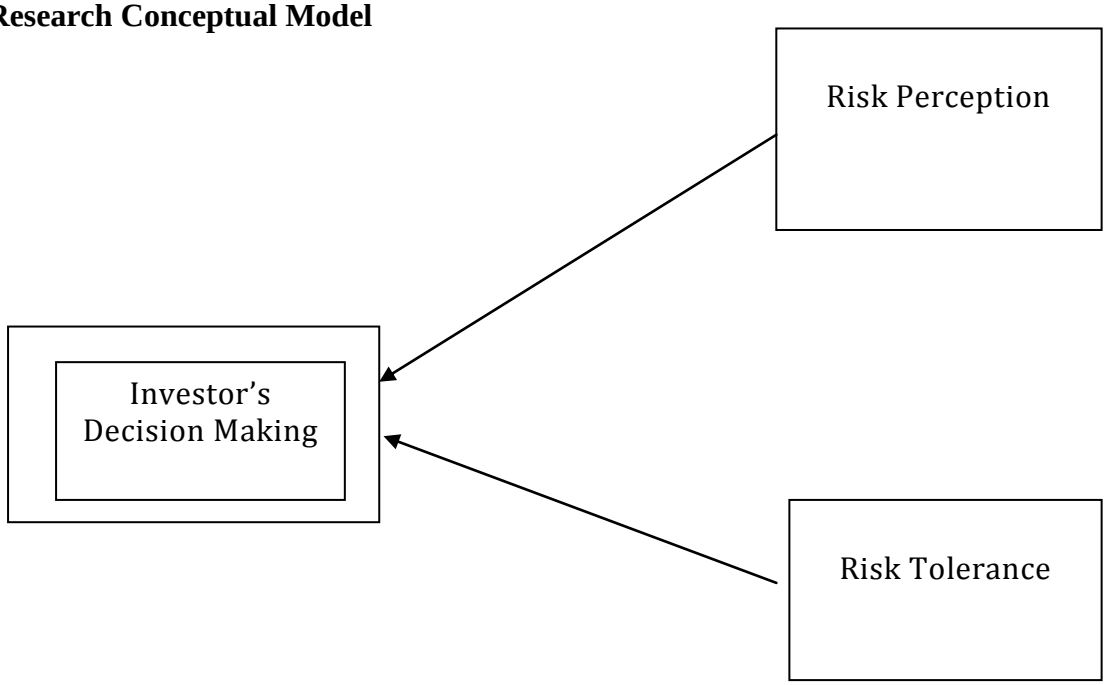


Figure 1. Research Model

Research Method

This study in term of purpose is applied research, and in term of the type is descriptive - survey research.

Statistical population

Statistical population of the research includes the investors in Tehran stock exchange. In this research Cochran formula (unrestricted population) was used for sampling.

Statistical Sample and Sampling Method

Simple random sampling was used in the research. According to Cochran principle sample size will be 384.

Pearson correlation coefficient

Pearson correlation coefficient to test research hypotheses

Considering the result of normality test it was determined that the data under investigation are normal. Therefore, we use parametric tests and since we are after investigating the effects between dependant and independent variables, we employ Pearson correlation test which is parametric. Risk Perception and risk Tolerance effect on investors` decision making in Tehran Stock Exchange.

Pearson Correlation coefficient test for investigating the research hypotheses*:*

Regarding research hypotheses, Pearson correlation coefficient test results can be seen in table 1. Pearson correlation coefficient is in level of P<0.01 which equals R=0.810, for item of risk Perception and investors` decision making R=0.785, for item of risk Tolerance and investors` decision making R=0.806.
In Pearson test, H0 is rejected, and its opposite hypothesis H1 is confirmed, which is the research hypotheses of existence of a meaningful effect is confirmed. It means that there is significant relationship between Risk Perception and investor's decision making and its opposite hypothesis, the existence of a meaningful statistical effect between each of the variables and there is significant relationship between Risk tolerance and investor's decision making in stock exchange is confirmed.

Table 1: correlation coefficient between each of the independent variables on investor's decision making

Investors' decision making	Items	Pearson Correlation	Two way significant level
	Risk Perception	0.785**	0.002
	Risk tolerance	0.806**	0.000
	99 percent certainty level		

Results of Multi Regression test

Analytics results of the research show that there is a positive and direct relationship between independent variables of investors decision making. Now, to investigate the degree of this effect and to see which factor has higher efficiency, we will use multi regression test. Parametric multi regression test is used to evaluate the determinacy of aspects of the research variables.

Table 2: The estimated coefficients of model

Model	Standard Coefficients		Non-standard coefficient	T	Significant level
	B	Standard error	Beta		
Fixed amount	1.208	0.114		5.263	0.003
Perception Risk	0.289	0.049	0.348	2.118	0.011
Tolerance Risk	0.317	0.067	0.476	2.127	0.008

After investigating Model`s credibility standards, considering the hypothesis of coefficient of the regression model not being zero, estimated regression model test is as follows

$$Y=1.208+(0.317)T1+(0.348)T2+e$$

Therefore, regarding role and share of each of the variables in determining the dependant variable since these rates are standardized and provide the possibility of comparing and determining relative share of each of the variables (Kalantari 2009).

Research findings

First Hypothesis:

Effect of Risk Perception on Investors' Decision Making in Tehran Stock Exchange

According to regression test it can be said that in 99 percent certainty level Risk Perception with beta coefficient of B=0.317 has the significant effect on investor's decision making.

Second Hypothesis:

Effect of Risk Tolerance on Investors' Decision Making in Tehran Stock Exchange

According to regression test it can be said that in 99 percent certainty level Risk Tolerance with beta coefficient of B=0.348 has the significant effect on investor's decision making. Risk Tolerance understands a degree of risk appetite that person or a company can tolerate and make him compatible, without receiving irreversible losses.

Conclusion

According to this issue that main problem of this study is investigating the risk Perception and risk Tolerance effect on investors` decision making in Tehran Stock Exchange, obtained results from Pearson correlation test and regression are the indicator of collective confirmation of effective factors in investors` decision making. In other words, there was no proof for rejecting research hypotheses. In general we can say that in investment, there are two different but important characteristics, time and risk. The importance of these two is because in investment, spending happens in the present time and its amount is determined whereas its reward comes in the future and usually is accompanies with lack of certainty. In some cases, time is the dominant (such as governmental loan paper) and in some cases risk, importance wise, comes first (such as optional paper of normal stock purchase) and in some both are important.

References

Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modelling in practice: a review and recommended two-step approach. Psychological Bulletin, 103, 411-423

Al-Tamimi, H.A.H.(2006) Factors influencing Individual Investor Behavior: An Empirical Study of the UAE Financial Markets; The Business Review, Cambridge, 5(2),255-232.

Ali Saeidi & Seyed Mohammad Javad Farahaniyan (2011). Basics of economy and financial behavior. Tehran. Burs publications

Arvid O. I. Hoffmann, Thomas Post & Joost M. E. Pennings (2015) How Investor Perceptions Drive Actual Trading and Risk-Taking Behavior, Journal of Behavioral Finance, 16:1, 94-103, DOI: 10.1080/15427560.2015.1000332.

AbouRizk, Simaan; "Risk and Uncertainty in Construction", February 2003.

Ali Mohammadi & Firuz Sotudeh (2014). Designing and explaining a plenary model from micro and macro factors affecting investment in Tehran Stock Exchange. Journal of financial knowledge of analyzing Bonds. Summer 2015. Year 8. Issue 26

Brockman, Paul; S. Howe, John; Mortal, Sandra. (2008), "Stock market liquidity and the decision to repurchase", Journal of Corporate Finance 14, 446–459.

Byrne, Kathleen. "How do consumers evaluate risk in financial products?" Journal of Financial Services Marketing, Henry Stewart, Publications, 2005, Vol.10.

Fama, Eugene F; French, Kenneth R. (2006), "Profitability, investment and average returns", Journal of Financial Economics 82, 491–518.

Fereydoun Rahnamad Roudposhti & Ahmadn Nateq Golestan, Ahmad Yaqub Nejad (2014). Presenting a subjective model of investors` risk Perception in Tehran Stock Exchange. Scientific research quarterly of Investment knowledge. Year 4. Issue 13. Spring 2015

Houshang Shajari & Solmaz Sadat Emam (2012). Identifying and analyzing investors decision making in Tehran Stock Exchange. Commercial investigations. 2(1). Pages 1-13

Mirfeyz Shamsfalah & Shariyar Azizi (2008). Investigating the factors affecting true investors investment intention in Tehran Stock Exchange. Scientific research journal of stable growth and development. Winter 2008. Issue 28

Mohammad Hossein Vadiei & Mahmoud Shokouhi Zadeh (2011). Investigating effective financial standards in investors decision making in Stock Exchange. Journal of accounting knowledge. Third year. Issue 8. Spring 2012

Mahdi Abzari, Saei Samadi & Hadi Teymouri (2008). Investigating the effective factors in investment in Stock Exchange (case study of Efehan`s regional stock echange). Journal of Economical queries. Fall and winter 2008. Issue 10

Mohammd Lashkari & Homa Mortazi (2011). Financial behavior hypothesis and its effect on amount of individuals investments in Tehran Stock Exchange. Scientific promotion journal Rahbord Tosee. Summer 2011. Issue 26

Nagy,R and Obenberger, R.W(1994). Factors influencing investor behavior, Financial Analysts Journal, 50, 63- 68.

Qolamreza Mesbahi Moqdam & Mohammad Safari (2009). Investigating the income of risk Tolerance from the Islamic teachings perspective. Scientific research journal of Islamic economy. Winter 2009. Issue 36

Reza Raei & Ahmad Talangi (2008). Advanced investment management. Tehran, Samt publication. Issue 2

Shapour Mohammadi, Reza Raei & Qolamhossein Gol Arzi 2010).Analysis of collective behavior of investors in Tehran Stock Exchange by using space manner model. Journal of Accounting and financial researches. Issue 4. Winter 2011

Sharp, .w.f. & G.J. Aleander & J.V. Bailey (2002). "Dynamic Network Model of Investment Control for Quadratic Risk Function", Automation and Remote Control Journal, Vol. 63, No.2.

Shim, Gyu-yeol; Lee, Seung-hwan; Kim, Yong-man. (2008), "How investor behavioral factors influence investment satisfaction, trust in investment company, and reinvestment intention", Journal of Business Research 61, 47–55.

Tversky,A, and D. Kahneman (1982) Judgment of and by representativeness; in Kahneman, D, P, Slovic, and A, Tversky (Eds), Judgment under Uncertainty; Heuristics and Biases, Cambridge University press, Cambridge.

Tehran stock exchange organization (2009). Factors affecting liquidity in newly found markets

http://www.construction.ualberta.ca/papers.shtml, Accessed March 2005.

Zhang, F., Tian, Y. & Wirjanto, T.,(2007), Liquidity Risk and Cross-Sectional Returns: Evidence from theChinese Stock Markets, Finance Research Letters, Vol. 6, No 4.