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Investigating the Effects of Expected Return of Investment, Risk' Perception and 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 Expected Return of Investment, Risk' Perception and 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 a main hypothesis as the expected return on investment; perception and risk tolerance effect on investors' decisions in Tehran Stock Exchange three Minor Hypotheses: the expected return on investment, risk perception and risk tolerance. Assumptions of parametric tests including test, Pearson correlation coefficient between independent variables to study the effects and related research and multiple regressions to evaluate the effect and which has a greater impact factor is used. The results of the analysis showed that there is direct and positive relationship between the independent variables and assumptions, investors' decisions in Tehran Stock Exchange. The results show the overall impact of variables expected return on investment, risk perception and risk tolerance of investors' decisions in Tehran Stock Exchange and eliminate the factors; expected operating return on investment has had the greatest impact on stock investment decisions. These factors can be combined with other factors such as personality and behavioral and psychological investors, attitude, financial and behavioral research will be the focus of researcher's attention.

Keywords: Expected Return of Investment, Risk Perception, Risk Tolerance

Introduction

Economical growth and development of a country requires being equipped with Investment resources and its optimum allotment to components of economical activities. This requires the development of financial aspect of economy, especially expansion of Investment 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 Investment 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).

Today 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 expecting Investment return, Perception and tolerance risk on investors` decision making in Tehran Stock Exchange.

Research Problem, Importance and necessity of the Research

Investors in Investment market, weather they possess 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 Investment 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 Meynard Keans (self-control, being forethoughtfuland Harry Marquinz (refrencepoints). Therefore this need to investigate the effects of expecting Investment return which in the current study, Perception and tolerance risk which all of them has their roots in the behavior of investors in Tehran Stock Exchange.

Research Objectives

Main Objective:

To identify the effect of expecting Investment return, risk` Perception and tolerance on investors` decision making in Tehran Stock Exchange

Minor Research Objectives:

1- To identify the Effects of expecting Investment return on Investors' Decision Making in Tehran Stock Exchange
2- To identify the Effects of Risk Perception on Investors' Decision Making in Tehran Stock Exchange
3- To identify the Effects of Risk Tolerance on Investors' Decision Making in Tehran Stock Exchange

Research Hypotheses:

Main Hypothesis:

There is significant effect between expecting Investment return, risk Perception and tolerance on investors` decision making in Tehran Stock Exchange

Research Minor Hypotheses:

1- There is significant effect between expecting Investment return on Investors' Decision Making in Tehran Stock Exchange
2-There is significant effect between Risk Perception on Investors' Decision Making in Tehran Stock Exchange
3-There is significant effect between Risk Tolerance on 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.

In a research conducted by Hossein Panahiyan and Mojgan Safa in 2009 titled effective factors in in investors decision makings in Tehran stock exchange in the perspective of activists in in Investment market, it was proved that in decisions of purchasing stock the most important factor if stocks liquidity or expecting Investment return and its transformation into cash and after it factors such as, relative stability of profitability, stock output, and stock pricing process are important and other factors in the later categories.

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

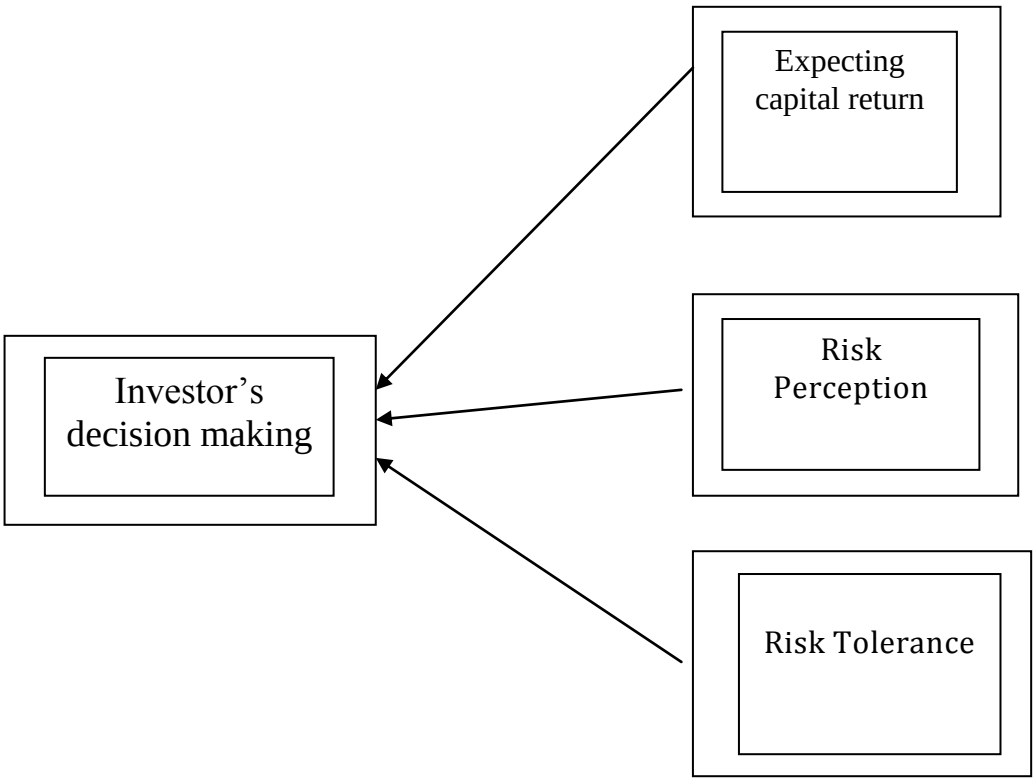


Figure 1. Research Model
Resource: Hoffmann et al. (2015)

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` Main Hypothesis

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.

Expecting Investment return, risk Perception and tolerance effect on investors` decision making in Tehran Stock Exchange.

In order to, investigating the effect of Expecting Investment return, risk Perception and tolerance on investors` decision making by Pearson correlation coefficient has been used. Accordingly results of Pearson test are used to investigate the correlation rate between the two variables as can be seen in table 1. In certainty level of P<0.01 which equals R=0.8000, which is statistically meaningful. Therefore, By considering sig=0.007 in the test, H0 is rejected, and its opposite hypothesis, H1, which is the research`s first hypothesis of existence of a meaningful effect is confirmed.

Table 1: Pearson correlation coefficient between Expecting Investment return, risk Perception and tolerance on investors` decision making

Correlation		
Expecting Investment Return, Perception, and tolerance risk	Investors decision making	
	Pearson Correlation	0.800**
	Two way significant level	0.007
	99 percent certainty level	

Pearson Correlation Coefficient test for investigating the Minor Hypotheses:

Regarding minor hypotheses, Pearson correlation coefficient test results can be seen in table 2. 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`s second hypothesis of existence of a meaningful effect is confirmed. It means that there is significant relationship between Investment return expectation and investor's decision making and its opposite hypothesis, the existence of a meaningful statistical effect between each of the variables and investor's decision making in stock exchange is confirmed.

Table 2: correlation coefficient between each of the independent variables on investor's decision making

Investors' decision	Items	Pearson Correlation	Two way significant

making			level
	Expecting Investment return	0.810**	0.001
	Risk Perception	0.785**	0.002
	Risk toleration	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.

To investigate the effectiveness degree of each of the mentioned variables on investor's decision making we have used multi regression test. After investigating the indexes of model qualification that is presented in the table below, we will attempt to present the fitted model.

Table 3: indexes of model adequacy between independent and dependent variables

Correlation	Determining coefficient	Adjusted determining coefficient	Standard deviation	Durbin- Watson Statistics
0.674	0.412	0.400	0.452	1.684

As it can be seen in the above table, R is 0.674. That means that the total correlation coefficient between dependant and independent variables is 67 percent. Also, R2 is 0.412, which shows the determinacy degree of dependant variable through independent variable. In other words, it can be said that 41 percent of investor's decision makings have relationships through Investment return expectation, Perception and tolerance risk variables. Considering the Durbin- Watson statistic of 1684, since it is higher than the standard amount of Du(3,384)=1.62, we accept the independency hypothesis of the remainders.

Table 4: Analysing the Variance and meaningfulness of model for expecting Investment return, risk Perception and tolerance on investors` decision making in Tehran Stock Exchange

	Squares total	Freedom degree	Squares mean	F Statistic	Significant level
Regression model	18.521	3	6.107	16.335	0.000
Remainders	48.654	381	0.189		
Total	67.175	383			

Considering the above table, calculated significant level for Statistic is 0.000and is an indication of significant of regression model in 0.99 levels. Moreover, mean of the remainders is zero according to the

table below and regression model confirms the hypothesis of normality of the remainders. Therefore, the estimated linear regression model is acceptable.

Table 5: Information about Remainders and Residuals Statistics of regression model

	Minimum	Maximum	Mean	Standard Deviation	Amount
Predicted value	2.1478	3.75	3.687	0.319	384
Remainders	-1.1818	1.47	0.0000	0.369	38
Minimum value predicted	-2.550	2.69	0.0000	1.00	384
Remainders error	-2.240	2.87	0.000	0.875	384

Table 6: 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
Expecting Investment return	0.362	0.058	0.476	2.140	0.001
Perception Risk	0.289	0.049	0.348	2.118	0.011
Toleration 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+(0.476)T1+(0.317)T2+(0.348)T3+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). According to B Investment return expectation coefficient is by far higher than two other variables. Their beta rate is an indication of T1 has more share and role than others, as based on the obtained beta, for one unit change in deviation of Investment return expectation; there will be a 0.058 change in standard deviation of investor's decision making.

Research Findings

First Minor Hypothesis: effect of expecting Investment return and investor's decision making

According to regression test it can be said that in 99 percent certainty level expecting Investment return aspect with beta coefficient of B=0.476 has the most effect on investor's decision making.
In a research conducted by Hossein Panahiyan and Mojgan Safa in 2009 titled effective factors in in investors decision makings in Tehran stock exchange in the perspective of activists in in Investment

market, it was proved that in decisions of purchasing stock the most important factor if stocks liquidity or expecting Investment return and its transformation into cash and after it factors such as, relative stability of profitability, stock output, and stock pricing process are important and other factors in the later categories.

Mahdi Abzari, Saei Samadi, and others in a research in year of 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 Investment allotment) and characteristics related to Investment market (expected output rate and past performances information) were investigated. Its results proved that, risk Perception affects desire for investment, expected output rate and Investment allotment, and past performances information affects desire for investment and expected output rate.

A result of that research is in line with the current research and confirms it. Indeed, Expecting Investment return and stock`s liquidity gives power and feeling of trust to investors decision making at any time.

Second Minor 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.

Third Minor Hypothesis: Effect of Risk Toleration on Investors' Decision Making in Tehran Stock Exchange

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

Main Hypothesis: Expecting Investment return, risk Perception and tolerance effect on investors` decision making in Tehran Stock Exchange.

According to the results of Pearson test for evaluating correlation degree between variables we can see that in the certainty level of $P<0.041$ $R=0.8000$ which is statistically meaningful.

In a research conducted by Mericas group in 2003 in Greece stock exchange, it was shown that investors standards is not only economical entering investment, but it is accompanied with psychological factors. Mericas findings revealed that investor does not make complete logical decisions, but he combines the existing information with his emotions and expectations and enters investment. Therefore, as it can be seen, in the current research we have attended both to expecting Investment return factor and Perception and tolerance risk which also depend on the mental condition of the investor.

Conclusion

According to this issue that main problem of this study is investigating the Expecting Investment return, risk Perception and 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. IT is worth mentioning that the obtained results and findings in the research show that among all factors, expecting Investment return has the highest effect on investors` decision making. 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.

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