

“The effect of control locus on process of individual Investors Decision-making (Tehran Stock Exchange)”

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ABSTRACT

The aim of this article is, determine the effect of control locus on process of individual investor's decision-making in Tehran Stock Exchange. This article is a survey research. The research method is a descriptive survey. This study was conducted in Investors of Tehran Stock Exchange. The sample comprises Investors, which were selected randomly. Data have been collected by a researcher-developed questionnaire and Rotter's locus of control standard questionnaire and sampling has been done through census and analyzed using SPSS software and t-test independent formula. The results showed that on investment process includes the steps of determining the investment policy (measured with variable of investors minimum risk policy) and investment appraisal (measured with variable of understanding of investor's performance) there is a significant difference between individual investors with internal and external locus of control.

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INTRODUCTION

With regard to numerous investment opportunities in Iran and insufficient investment by an individual or group of individuals, stock exchange could disport a effectiveness role and constructive in this region. Also, identifying the efficient variables on investment in the stock exchange can be considered as the starting point for public participation.

Nowadays many studies on investment behavior have been conducted using various approaches. In stock markets, investors may decide whether to buy or not to buy a decisive stock because they are or are not interested in the name of its organization – an instinctive but incompetent decision [18]. Consequently investors' decision-making is not always based on rational factors but also influenced by the psychological ones [19,28].

Investment decisions are made by investors and investment managers. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and judgment. Investment decisions are often supported by decision tools. It is assumed that information structure and the factors in the market systematically influence individuals' investment decisions as well as market outcomes. Investor market behavior derives from psychological principles of decision making to explain why people buy or sell stocks. These factors will focus upon how investors interpret and act on information to make investment decisions. Behavioral finance is defined by Shefrin, [30] as a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners. Individual investments behavior is concerned with choices about purchases of small amounts of securities for his or her own account [20]. No matter how much an investor is well informed, has done research, studied deeply about the stock before investing, he also behaves irrationally with the fear of loss in the future. This different behavior in the individual investors is caused by various variables which reconciliation the investor rationality. An individual investor is one who purchases generally small amounts of securities for his or her own account.

Chang & Yan Luo (2005) investigated the psychology of investors in relation with the incomplete evaluation of the company's shares with using the Rhodes-Kropf model. Their results indicate that incomplete assessment criteria with regard to effect of size and momentum have the ability to predict future stock returns.

According to Ritter [24], behavioral finance is based on psychology which suggests that human decision processes are subject to several cognitive illusions. These illusions are divided into two categories: illusions caused by heuristic decision process and illusions rooted from the adoption of mental frames grouped in the prospect theory [33]. These two groups as well as the herding and market variables are also presented as the following.

With respect to important of issue, the present article is looking for an answer to the question that how takes a decision individual investors of Shares purchaser in Tehran Stock Exchange. What are decision making factors for investors?

Locus of Control:

Cromwell, Rosenthal, Shakow, and Zahn [8] appear to be the first to have used the term locus of control in reference to the construct of external versus internal control of consolidation. Though hundreds of researches investigated the construct, it was not until the early 1970s that the term locus of control appeared in the psychology literature. Another decade passed before the term locus of control entered common usage throughout the literature in reference to the construct of external versus internal control of consolidation.

Since the investment is purchase behavior of capital assets or in other words is consumer behavior in result for purchase decisions about assets with investment consumption, in present article with the help of consumer behavior frameworks illustrated investment behavior. The article results of Flores et al [13] has shown that many variables affect the selection of a product by the financial and customer markets are a perfect environment for the investigate of customers behavior. Robin et al [26] in research with title "Investors behavior modeling" Factors such as information, investor sentiment, values and stock prices have been known to affect investor behavior.

Heuristic theory:

Heuristics are illustrated as the rules of thumb, which makes decision making easier, particularly in uncertain and complex environments [25] by reducing the complexity of assessing probabilities and predicting values to simpler judgments (Kahneman & Tversky). Generally, these heuristics are quite useful, in particular when time is limited [33], but sometimes they lead to biases [15,24]. Kahneman et al seem to be ones of the first writers studying the variables belonging to heuristics when introducing three variables include representativeness, availability bias, and anchoring [15]. Waweru et al also listed two variables named Gambler's fallacy and Overconfidence into heuristic theory [33].

Prospect theory:

Expected Utility theory and prospect theory are considered as two approaches to decision-making from various perspectives. Prospect theory concentrates on subjective decision-making influenced by the investors' value system, whereas Expected Utility theory concentrates on investors' rational expectations [12]. Expected utility theory is the normative model of rational choice and descriptive model of economic behavior, which dominates the analysis of decision making under risk. Nonetheless, this theory is criticized for failing to explain why people are attracted to both insurance and gambling. People tend to under-weigh probable outcomes compared with certain ones and people response differently to the similar situations depending on the context of losses or gains in which they are presented [16]. Prospect theory describes some states of mind affecting an individual's decision-making processes including Regret aversion, Loss aversion and Mental accounting [33].

Investor's behavior:

investment behaviors are defined as how the investors judge, predict, analyze and review the procedures for decision making, which includes investment psychology, information gathering, defining and understanding, research and analysis. The whole process is "Investment Behavior" [31,2]. In this paper this definition is adopted.

Consumer behavior:

Consumer behavior include mental activity, emotional and physical that people use during selection, purchase, use and dispose of products and services that satisfy their needs and desires [17]. Consumer behavior is the activities people undertake when obtaining, consuming and disposing of products and services [4]. Another definition of consumer behavior runs as follows: The dynamic interaction of affect and cognition, behavior, and environmental events by which human beings conduct the exchange aspects of their lives [3].

Risk Minimization:

Risk minimization comprise formatting Investment portfolio n such a way that to minimize due to certain restrictions [29]. Empirical risk minimization expected utility theory is a principle in statistical learning theory

which defines a family of learning algorithms and is used to give theoretical bounds on the performance of learning algorithms

Then, Objectives of this research are:

- 1- To find out the relationship between individual investors minimum risk policy and internal and external locus of control
- 2- To find out the relationship between individual investors maximum return policy with internal and external locus of control.
- 3- To find out the relationship between understanding of investors performance with internal and external locus of control.

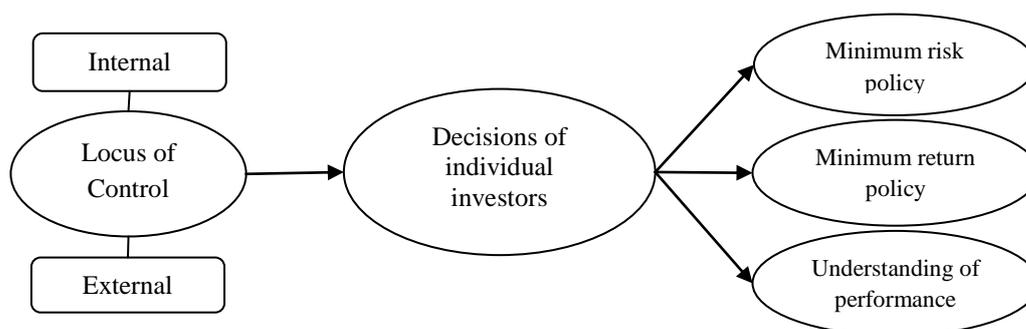


Fig. 1: conceptual model

Hypotheses:

The first hypothesis: there is a significant difference between individual investors minimum risk policy with internal and external locus of control.

The second hypothesis: there is a significant difference between individual investors maximum return policy with internal and external locus of control.

The third hypothesis: there is a significant difference between understanding of investors performance with internal and external locus of control.

Methodology:

Objectives of this research are found out the effect of control locus on process of individual Investors Decision-making in Tehran Stock Exchange in 2014. The current research has a descriptive-correlative method. The matters are chosen among Investors of Tehran Stock Exchange. Data collection is done through random sampling. First, a group of 30 persons were selected from the subjects and the questionnaire distributed among them. 170 Investors were selected randomly as the subjects of the study. In this research, questionnaire was used as a data collection tool. It included measures on locus of control and individual investor's decision-making which it items was rated according to 5 point Likert scale. The validity of its content was ensured by using the expert viewpoints and consensus. The validity of its structure was measured through using the structural functions. The internal reliability of the items was verified by computing the Cranach's alpha. Nunnally (1978) suggested that a minimum alpha of 0.7 sufficed for stage of search. The Cranach alpha estimated in this research was all much higher 0.7, the constructs were therefore deemed to have adequate reliability.

Research Findings:

Description: dependent variable:

To identify decision-making process constitutive factors enter variable on factor analysis. Table 1 shows the values associated with each test. According to the indexes it can be concluded that the model have a relatively good fitness.

Table 1: values of K.M.O and Bartlett test

amount	test
KMO	.922
Bartlett	6828.451
Significant level.	0.000

In fact, about the investment decision making process, all variables are the three factors and in total, these three factors explain 41/8 percentage of explained variables variance. Of total, the explained variance, the first variable explained, 19/3, the second variable explained, 17/5 and the third variable, explained 5/5.

Table 2: Extracted factors with Eigenvalues, percentage of variance and Concentration

variable	Rotations, After of extraction		
	Eigenvalues	variance	Concentration
1	1/875	19/3	19/3
2	1/748	17/5	36/8
3	1/555	5/5	64/2

In order to better understand of factors and that each variable is composed of what items, refer to Table 3.

Table 3: Variables related to each factor

number	title	Items	Factor Loading
The first variable	minimum risk policy	To prefer shares, even with low risk	0/758
		Selecting the diverse portfolio	0/545
		To prefer investment in shares of investment companies	0/616
		Selecting the Stocks likely to increase over 20% in years	0/723
The second variable	minimum return policy	Collecting necessary for buying shares	0/605
		High return	0/744
		Stocks with high return even with high risk	0/676
		To prefer Shares in the ratio p/e down	0/707
The third variable	understanding of performance	Profitable investments in stocks	0/649
		Problems related to the exchange	0/719
		Satisfied with the performance of stock	0/654
		Poor performance of my in exchange	0/627
		Continuing to current investment methods in the exchange	0/728

Results

The first hypothesis:

there is a significant difference between individual investors minimum risk policy with internal and external locus of control:

The table below shows the difference between the policy decision-making process at risk in terms of locus of investors control. According to significant level ($0.000 = P$) and results of table 4, since observed R-square is 0.351, Significant is 0.000, and value amount ($T=3/19$) so Hypothesis at least 99% is significant. The table indicate investors that have an external locus of control further use of minimal risk politics in decision making process

Table 4: the first hypothesis

locus of control	Frequency	Mean	Sd	T value	Significant level
External	74	15/83	4/36	3/19	0/000
Internal	96	12/67	3/41		

The second hypothesis:

there is a significant difference between individual investors maximum return policy with internal and external locus of control.

The table below shows the difference between the policy decision-making process at risk in terms of locus of investors control. According to significant level ($0.000 = P$) and results of table 5, since observed R-square is 0.351, Significant is 0.000, and value amount ($T=3/19$) so Hypothesis at least 99% is significant. The tables indicate investors that have an external locus of control further use of minimal risk politics in decision making process

Table 5: the second hypothesis

locus of control	Frequency	Mean	Sd	T value	Significant level
External	74	13/51	4/76	3/67	0/000
Internal	96	11/79	4/52		

The third hypothesis:

there is a significant difference between understanding of investors performance with internal and external locus of control.

The table below shows the difference between the policy decision-making processes at risk in terms of locus of investor's control. According to significant level ($0.000 = P$) and results of table 6, since observed R-square is 0.351, Significant is 0.000, and value amount ($T=3/19$) so Hypothesis at least 99% is significant. The table indicates investors that have an external locus of control further use of minimal risk politics in decision making process.

Table 6: the third hypothesis

locus of control	Frequency	Mean	Sd	T value	Significant level
External	63	22/62	4/57	4/16	0/000
Internal	107	20/27	4/11		

Conclusions:

This research, investigate behavioral finance theories and models of consumer behavior. The aim of this article is, determine the effect of control locus on process of individual Investors Decision-making in Tehran Stock Exchange. the study finds out some interesting conclusions: (1): there is a significant difference between individual investors minimum risk policy with internal and external locus of control, (2): there is a significant difference between individual investors maximum return policy with internal and external locus of control, (3): there is a significant difference between understanding of investors performance with internal and external locus of control. These results are consistent with previous research Odean, T. & Gervais [21], Daniel & Hirshleifer & Subrahmanyam [9]. This research indicate that novice investors unduly and more than enough trust to earn greater returns than the market average but most of them failed to pick. Investors with biased control source, after a successful investment, its success is due to the penetration of knowledge and factors outside of the control completely overlook. This behavior can cause great risk, because investors are confident in their behavior very much. Also, this bias often encourages investors to carry out transactions over the stems. If investors believe their successful investors are due to skill, not luck. In this case, their transaction is high and continuing this behavior is harmful. This bias pulls investors to "hear what they want to hear". This behavior can lead to which investors buy or hold shares, which should not.

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