

The Effect of Behavioral Factors, The Kind of Information and Transparency of Information on Investors' Behavior in Ahvaz Stock Exchange

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Abstract:

Today, given the atmosphere of Iran & world's capital markets, analyzing behavioral factors that influence decisions of investors, is very important. This applied study is to evaluate the effect of behavioral factors (biorhythm mode, self-esteem, prestige & rational behavior) and so the kind of information (public & financial) and transparency of information on the investors' behavior, on a random sample of 292 shareholders & investors in Ahvaz stock exchange. Collecting data is through questionnaires and data analysis, with modeling structural equation using SPSS & SMART PLS software. The results show that the kind of information and behavioral factors influence the behavior of individuals who invest in the stock market significantly. But, significant relation between transparency of information and investor's behavior was not confirmed.

JEL classification: M21

Keywords: Behavioral factors; Investor's behavior; Transparency of information; Type of information

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1. Introduction

An important Factor in capital market is recognition of stocks exchange and its elements. In this regard, investors are the key elements of this market.

Since attraction of capital and small savings and guiding it for development of companies are very important, recognizing the behavior of providers of financial resources and behavioral factors influencing on their economic decisions had always been challenging for academic researchers and even those who participate in the market (Rajabi Ghiri, 2011). To attract savings and maintenance capital to stock exchange and also, to help investors to achieve the goals of the investment effectively, behavior of investors should be analyzed and the factors of uncertainty and lack of transparency of information need to be identified (Shabani Naeini, 2010).

Investor's behavior is affected by many factors and financial behavior plays an important role in financial decisions, where cognitive psychology is used to understand human behavior (Kim & Nofsinger, 2008).

In today's turbulent environment, many investors are paying attention to the importance of transparency in information and behavioral factors in their strategies; because lack of information or uncertainty today has become a major problem in financial markets (Admati & Pfleiderer, 2000).

Over the past decades, one of the important reasons of crisis in national and international financial markets has been lack of transparency in financial information. This negatively affects public confidence in capital market and investor's behavior (Sridharan, Dickes & Caines, 2002).

Indeed, the process of investors' making decision and their behavior in the capital market is complicated so providing a single model for predicting their behavior is not possible. In many cases, the behavior of investors seems irrational in stock market and it is impossible to identify behavioral tigers accurately. In This study, was examined the influence of behavioral factors (biorhythm, self confidence, rational behavior and prestige), the type of information

(the public and financial information) and transparency of information on behavior of investors who invest in the stock market of Ahvaz.

2. Literature review

2.1. Investors behavior

The process of investors' decision to buy stocks is very similar to those who buy consumer goods. Indeed, investors use inner power and more subjective analysis in contrast to buyers of consumer goods and services. In general, stock buyers consider both internal and external dimensions like consumers of goods and services for deciding to purchase. However, these two dimensions are different in importance for consumers and investors. In the process of making decision for investing in stock market, internal factors have a greater impact. Deciding to invest in the stock exchange increases new sources of capital and provides growth and prosperity of the stock market and finally economic growth (Dehghan, 2008).

Behavioral factors influencing investment decisions

In this study, four psychological factors affecting investors' behavior are examined:

Biorhythm

Biorhythm means the rhythm of life; a set of physical, mental and emotional cycles that affect behavior of individuals from birth to death. Biorhythm claims that One's life is affected by Biorhythmic biological cycles and determining these cycles will facilitate the course of functions that are related to each of these periods. The purpose of determining Biorhythm cycles is determination of individuals' rhythmic cycles, determining the effect of rhythm on individuals' states, calculating the optimal and critical days, optimal performance, not doing some activities in critical states and predicting periods of weakness and strength. According to biorhythm, people show different behaviors at different times and this internal change could be the reason of different behaviors and naturally, scientific understanding of these behaviors increase

understanding investors and realizing the reactions and behaviors (JavaherDashti, 2000).

Rational behavior

Another important behavioral factor in investment is personal power and capability to analyze. Generally, if people feel they have energy and capacity to perform a task excellently, the task will be fulfilled more successfully than others.

Some people inherently have high power of analysis and need minimum data for analyzing precisely (Ganji, 2014). So it seems these individuals are more likely to purchase shares and be active in stock market.

The prestige of being a shareholder

Being prestigious is another important factor in purchasing shares and investing in the stock market. Some people buy shares of a company just to get prestige. In other words, these people will satisfy themselves mentally by purchasing shares of special companies. Indeed, gaining prestige motivates them to purchase the shares. Such prestige can be achieved by saying phrases like "I'm one of the stockholders of that company" to friends and acquaintances (Dehghan, 2008).

Self-confidence

Self-confidence can have effect on deciding to invest in the stock market. People with low self-confidence invest on more reliable products (such as land, short-term savings, etc). On the other hand, those with high self-confidence decide more confidently and powerfully and this capability helps them to apply their power points and potential properly. Therefore, high confidence could act as a stimulus for investing in stock market (Dehghan, 2008).

2.2. General and Financial information of companies

One of the essential factors for making decisions in economic affairs is information. In capital market it should be noticed that many investors are ordinary people who access important information from the statements published by companies in form

of accounting and financial reports. Although the ultimate accounting goal is providing required information for users of accounting services, in the first paragraph of theoretical concepts and financial reporting standards of Iran, the main purpose of providing financial information is helping to make economic decisions. This shows the importance of this issue. Thereupon, those who have better access to information than others will be able to estimate better and because of this access, they affect supply and demand of market and tend to volatile stock prices (Fadaeinezhad & Nobakht, 2005).

2.3 Transparency of information

Webster's dictionary (1972) defines transparency as openness or explicit of institutions, honesty and capability of being understood easily. In this definition, the purpose of openness or aperture, is easy access to the company operations and the purpose of explicit, is clarity of information. These three variables are interconnected together and they could not be separated from each other. However, people have different perceptions of transparency. This transparency depends on positions and financial activities of a company (Vishwanath & Kaufmann, 2001).

3. Empirical research background

Considering behavioral-financial topics as a young field, some research is listed below:

Shajari & Sadat Emam (2012) identified and analyzed the factors that affect investors' decisions in Tehran Stock Exchange. The results of data analysis in this study showed that investors' decision making in Tehran Stock Exchange is influenced by the prediction of earnings per stock (EPS), cash dividends per stock (DPS) and volatility of price. The results also showed that political factors, transparency of financial information, the type of industry and the number of transactions of a stock have the highest influence on investors' decision in Tehran Stock Exchange (Shajari & Sadat Emam, 2012).

Talebnia&Jalili (2011) compared the effect of financial and non-financial information on the investment decisions of companies and active personal investors in Tehran Stock Exchange, and showed that financial information has more impact on the investment decisions but in personal investment, non-financial information have more impact on decisions (Talebnia&Jalili, 2011).

Tehrani & Ebrahimi Meimand (2011) examined the effect of different information on investment decisions, and determined the importance of various information sources as well as honesty in presenting it in decisions of companies' analysts in stock exchange. Data analysis through using regression analysis, path analysis and method partial least squares (PLS) revealed that evaluating share-based accounting data and information provided by managers has a significant effect on deciding whether to buy or sell stocks. Also, deciding to buy or sell stocks is affected by the amount of honesty in presenting financial information. These results had been confirmed in Newman's research (2009) (Tehrani & Ebrahimi Meimand, 2011; Newman, 2009).

In another study, the effect of psychological factors on intention people to invest in Tehran stock market was examined. The results showed that biorhythm, Inherent analysis power, the degree of Risk-taking, self-confidence, adaptation of self-image and gaining prestige all affect people's intention to invest in Tehran Stock Exchange (Dehghan, 2008). Also Fallah Shams and Azizi (2007) investigated factors influencing intention of investment in Tehran Stock Exchange and showed that neutral and public information and financial information have a positive significant effect on intention of investment in stock exchange (Fallah Shams & Azizi, 2007).

Merilkas & Prasad (2003) examined factors influencing Greek investors' behavior on the Athens Stock Exchange. Results showed that the decision criteria in purchasing a stock are the combination of economic and psychological factors. They found that investors' decision is not always a consistent and rational approach, and they make decisions based on a group of factors. Results also indicated

that the financial and accounting information and general information published in the capital market will shape the expectations of investors to buy a share (Merilkas & Prasad, 2003).

Al-Tamimi's research (2006) is another study that identified influencing factors on behavior of individual investors in the UAE capital market. He classified influencing variables on behavior in five categories; accounting and financial information, neutral information, bias recommendations, adaptation of self-image and corporate image and personal needs of investors. The findings showed that general information and published information by the company would have a direct impact on investors' expectations (Al-Tamimi, 2006).

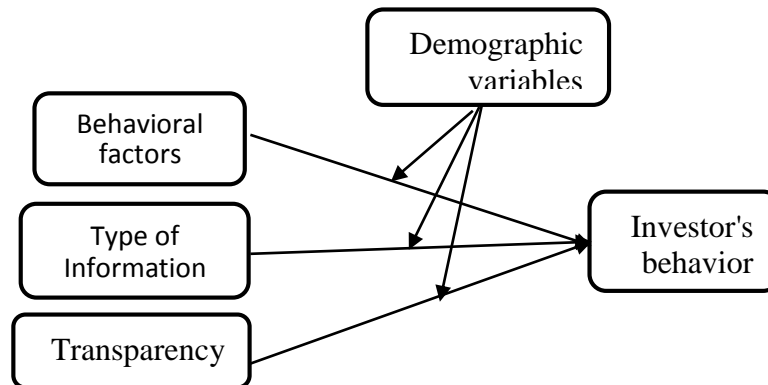
Hsiu (2006) examined the effect of financial information transparency on behavior of stockholders in Taiwan Stock Exchange, and the role of financial information transparency in growth of investment in the stock market. The results showed that investors' perception from the dimensions of transparency has a significant positive impact on their investment behavior (Hsiu, 2006). Cheung, Jiang & Tan (2010) also found similar results in this domain.

Zoghami & Matoussi (2009) also identified the main behavioral factors that influence investors' behavior in Tunisia. The results showed that the behavior of investors is affected by psychological factors such as prudence, optimism and a sense of inferiority, intelligence, self-confidence and discretion (Zoghami & Matoussi, 2009).

Also Dawar & Wadhwa (2011), in evaluation of influential factors on behavior of investors in Punjab, showed that investors' behavior was affected by public and accounting information, adjustment self-image and corporate image, the classical criteria of maximum wealth, and personal financial needs (Dawar & Wadhwa, 2011).

4. Conceptual model and hypotheses

In each scientific research, a scientific and theoretical framework or conceptual model is required. According to the literature and research history, a conceptual model is recommended as follows:

Figure 1: Conceptual model Research

So, research hypotheses include:

1. The type of information has a significant impact on investors' behavior.
2. The transparency of information has a significant impact on investors' behavior.
3. Behavioral factors have a significant impact on investors' behavior in the stock market.
4. The effect of type of information on investors' behavior is modified through demographic variables (gender, experience and education).
5. The Impact of information transparency on investors' behavior is modified through demographic variables (gender, experience and education).
6. The effect of behavioral factors on investors' behavior is modified through demographic variables (gender, experience and education).

5. Methodology

This research in terms of purpose and nature is an applied research and in terms of the manner of data gathering (research plan) is categorized as a descriptive study (non-experimental) and is a correlation research (Sarmad, Bazargan & Hejazi, 2012).

Statistical population of research is all stockholders and investors in Ahvaz Stock Exchange. Considering the large size and

unavailability of the whole statistical population, sampling was applied. Sampling method is the available sample and to determine the sample size equation (1) was used.

Equation (1):

$$n = \frac{z_{\frac{\alpha}{2}}^2 \cdot p(1-p)}{\varepsilon^2}$$

Considering 0/05 for (ε), 384 investors were selected as sample and for increasing rate of questionnaire return 400 questionnaires were distributed.

For data gathering valid questionnaires were used and their validity was approved through scientific research and considering the opinions of experts and professors. Thus, for measuring investors' behavior and information transparency Hsiu's questionnaire (2006), for measuring type of information Al-Tamimi's questionnaire (2006) and for evaluating behavioral factors Dehghan's questionnaire (2008) were used. Respondents indicated their views based on Likert scale from strongly agree to strongly disagree just by choosing one option.

For determining the reliability of the questionnaires, Cronbach's alpha coefficient was used. This coefficient is for behavioral factors, the type of information, transparency and investors' behavior, respectively 0/74, 0/72, 0/82 and 0/84 (total alpha= 0/79), which shows the reliability is measured by a good tool.

Data analysis methods are in two parts, descriptive and inferential; both were done by SPSS and Smart PLS (software), and for testing the hypothesis, Structural Equation Model was used. SEM examines a set of regression equations model simultaneously, and a comprehensive approach is to test hypotheses about the relation between observed and latent variables (Hooman, 2012).

6. Research findings

6.1. Normality test of distribution of data

Before testing hypotheses and to determine the type of statistical tests, first, it should be tested whether or not the data was normally distributed. The results of Kolmogorov-Smirnov test indicated that there is a significant difference between the distribution of data and normal distribution. It is concluded that the distribution of data is abnormal. Thus, data analysis and hypotheses tests were conducted through nonparametric tests using Smart Pls structural equation.

6.2. Fitness of model

For determining fitness of model, fitness indicators and confirmatory factor analysis were used. The parameters of model fitting are observable in Table 1.

Table 1: fitness model parameters

Fitness indicator	calculated amount	Acceptable value	Result
Chi-square (CMIN / df)	2/96	1 to 5	Confirmation
Root Mean Square approximation (RMSEA)	0/073	Less than 0/1	Confirmation
Comparative fit index (CFI)	0/92	>0/9	Confirmation
Normalized fit index (NFI)	0/95	>0/9	Confirmation
Goodness of fit indicator (GFI)	0/88	>0/9	Acceptable
Adjusted fitness (AGFI)	0/89	>0/9	Acceptable

As indicated in Table 1, parameters of model fitting are in an acceptable range. Therefore model of research is well-fit. For testing the hypothesis a significant partial indicator of the amount of statistic T (T-value) were used.

6.3. Descriptive results

Evaluation of demographic variables in the sample showed that more than 76% of shareholders and investors are male and 23% female. In terms of education, diploma or under graduate was the most frequent (46%), and in terms of experience, the highest rank (42%) belonged to 1 to 5 years of investment experience in stock exchange.

6.4. The results of hypothesis test

In this section, each research hypothesis was evaluated based on a causal structure in final model through the structural equation modeling technique using Smart PLS software.

In the first & third hypotheses, it was claimed that type of information & behavioral factors have significant impacts on investment behavior. The results showed that the amount of T-value is more than 1/96, so with 95% confidence the significant positive effect of type of information& behavioral factors on investors' behavior is confirmed. In other words, both hypotheses are confirmed. This results match Dehghan (2008), Fallah Shams and Azizi (2007) and Al-Tamimi (2006).

Also, in the second hypothesis the influence of information transparency on investors' behavior for investment was examined. The results showed that the amount of T-value was less than 1/96 (0/861), therefore research claim is rejected. In other words, although between information transparency and investment behavior a positive relation was observed, this relation was not significant. This result is not compatible with Asadollahi's study (2010), but it matches the results of Samimi Abyaneh (2011).

So, the results of hypotheses test are summarized in Table 2:

Table 2: Estimates of structural model (the results of hypotheses)

Item	Hypothesis: significant impact...	t-value	Standard coefficient	Test result
1	Type of information on behavior of investors	6/48	0/69	Approved
2	Transparency of information on investor behavior	0/861	0/42	Disapproved
3	Behavioral factors on behavior of investors in stock	9/44	0/44	Approved

6.5. Evaluation of moderator variables

In this study, moderator variables are gender, education level and experience. The method which was used in PLS for determining the role of moderator variables is called the group analysis. In this method, first data is divided into two categories, each placed in a separate file. So, in the first stage, the first data and in the second stage, the second data is run. Then, the results are set in Equation (2) and Analyzed (Davari & Rezazadeh, 2013).

Equation (2):

$$t = \frac{R1 - R2}{\sqrt{\frac{(n1 - 1)}{n1} * (s1)^2 + \frac{(n2 - 1)}{(n2)} * s2}} \quad (1)$$

- R1 and R2, respectively in group 1 and group 2 are data path coefficient loadings
- N1 and N2, are respectively number of data of the first and second group
- S1 and S2, are respectively the amount of data path standard error in group 1 and group 2

Accordingly, if the amount of t-value is more than 1/96, with 95% confidence, the role of moderator variable will be accepted (Davari & Rezazadeh, 2013). In this study, there are two groups of male and female for gender variable, academic education and without academic education for education variable, and two groups for experience variable; high experience and low or no experience.

The other hypothesis in this study examined the role of moderator variables (gender, level of education and experience). The results showed that gender does not moderate the effect of the type of information on investors' behavior and in fact, there is no difference between male and female investors. Similarly, the results of testing the role of moderating for other variables are summarized in table 3.

Table 3: Estimates of the structural model (moderator variables)

Item	Hypothesis: the role of moderators..	t-value	results
4	influence type of information on investment behavior by gender	0/91	disapproved
5	influence type of information on investment behavior by experience	8/66	approved
6	influence type of information on the behavior of investors by Education	1/85	disapproved
7	influence, transparency of information on investment behavior by gender	0/862	disapproved
8	influence, transparency of information on investment behavior by experience	11/71	approved
9	influence, transparency of information on investors behavior by Education	5/62	approved
10	influence of behavioral factors on investment behavior by gender	0/448	disapproved
11	influence behavioral factors influence the investors behavior by experience	13/68	approved
12	influence behavioral factors influence the behavior of investors by Education	2/67	approved

As table 3 shows experience moderates the behavior of investors. That is to say, behavior of investors for decision making is influenced by his high or low experience.

The results show academic education doesn't moderate the effect of type of information on behavior of investors. But, the moderating role of this variable is confirmed in the effect of transparency on behavior of investors, and the effect of behavioral factors on behavior of investors is confirmed, too.

7. Conclusion and Suggestion

7.1. Applied suggestions

According to confirmation of the hypothesis about positive and significant effect of psychological factors on investors' behavior, it is recommended that officials and agents of stock market act to hold training courses for experts and analysts of Stock Exchange and major investors about psychological factors such as biorhythm knowledge and the impact of these factors on making decisions

Stock market experts can provide special services for investors. As they understand investors' behavior and psychological factors that influence the behavior of investors, they can assist investors to make decisions, carry out safe investment in this field and encourage them to invest more.

On the other hand, as the significant positive effect of type of information on investors' behavior has been confirmed, experts and firms listed on the stock exchange are recommended to help investors by providing timely and accurate information and encourage investors to invest more and more confidently through building trust and enhancing validity of such information.

7.2. Research suggestions

Due to the extent of psychological factors, it is suggested to researchers to examine other behavioral factors affecting the behavior of investors in order to obtain more comprehensive results.

Because of lack or shortage of studies - in biorhythm knowledge and novelty of this subject in financial and behavioral issues – researchers are recommended to carry out specific research on biorhythm knowledge and analyze different moods of investors in biorhythmic cycles. However, the precise impact of biorhythm on investment behavior is quite evident.

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