Analysis of the structural model behavior of financial investors in capital markets using structural equation modeling (SEM)

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Abstract: Stock market is like any other market principles and specific conditions to consider and implement these basic principles can be invested and buy and sell shares of action and also a real understanding of the issues listed on the exchange. Basically, investors should check when buying or selling stocks are large; review your asset because they are converted into shares. Regardless if they are to invest in a range of factors, not the desired result ever. The purpose of this study was to investigate the factors influencing the behavior of financial investors in financial markets. To achieve this objective the Community Investment Statistics and financial experts in the Stock Exchange, the sample size of 239 patients were selected randomly. Data was collected by questionnaire according to experts, the validity and reliability by Cronbach approved, have been conducted to analyze the data and test hypotheses of statistical software SPSS and PLS was used. This descriptive survey research to examine the relationships between variables is a correlation. This study identifies the factors that influence the behavior of investors after the research findings showed independent variables as factors influencing the behavior and investment decisions were effective. The results also indicate that the structural parameters of the model have been fit.

Key words: Behavior of financial investors; Financial and capital markets; Securities exchange

1. Introduction

Stock market is like any other market principles and specific conditions and buys and sells shares of action and also a real understanding of the issues listed on the exchange. Investors should review the broad principle when buying or selling shares they do, because they have the cash assets are converted into shares. Regardless if they are to invest in a range of factors, not the desired result ever. This issue is discussed further in countries that do not exchange performance. In other words, the market price of the securities is not an appropriate indicator of the real value of the securities. As one of the official exchange market, the most important factor in attracting and organizing appropriate financial resources wandering and to raise cash and sell shares of companies, it also moves the wheels of the economy by providing needed capital projects, reducing government interference in the economy and increase tax revenues, brings significant economic benefits, and along with it, the effect of liquidity on inflation destroys the community. Stock Exchange's main task is to provide a fair and transparent market for trading securities accepted and also an appropriate system for monitoring the flow of trade, market operations and activities of its members the basic features of the legal protection of

owners of savings and capital requirement for applicants (Sadat Imam, 2012).

2. Statement of problem

Various factors are involved in decision-making and behavior of investors in financial markets; number of shares in public hands, the composition of shareholders, profitability, ratio of dividends per share, net income per share, the company's financial structure, time and date of payment of dividends, regular publication of news and information, life and the depreciation of machinery company, the company and the industry as well as the decisions of the macroeconomic and socio-political factors (Tavakoli Mohammadi, 2007). Thus, the exchange can be an important tool in controlling inflation and the growth rate. Factors affecting decision-making can provide the basis for providing services to investors. And appropriate action is taken to invest in the development process. Given the importance of this investment and the involvement of various factors on investment decisions and their behavior in the financial sphere; the study aims to identify and analyze the factors influencing the behavior and how to decide the financial investment in the Tehran Stock Exchange in the form of a conceptual model we through the classification and separation of the factors involved in the behavior of financial investors can measure for evaluating and risky move in the

Exchange to give financial investors. With regard to the proposed issue are the question factors affecting the behavior of financial investors and what is the pattern of the market in Tehran Stock Exchange?

3. Importance of research

In recent decades, researchers have noted the impact of human behavior on financial decisions and believe that investors in their financial decisions in risk categories and future stock prices and returns them in a completely different way of looking at the theory and many investors believe that the decision to concepts and assumptions underlying theories and models of selecting and baskets are a great investment and sometimes they do not know. Studies show that investors who trade or speculate with a risky trades, they have little benefit or suffer, so is aware of the different aspects that affect important financial decisions (Shajari, 2012). The importance of investment for economic and social development, which is as a powerful lever for achieving development is mentioned. But it should be remembered that the same amount that could be due to a falloff in a positive, the growth and prosperity of the economy, no matter it can also cause economic losses and a downward and away the negative. Therefore, it must be said that economic growth and increasing welfare in the long term, regardless of the investment and an important factor in the investment environment, that the effect is not possible. On the one hand, investors seeking to maximize its income from investments and on the other hand, faced with the uncertainty prevailing in financial markets that the last factor to achieve investment returns is faced with uncertainty (Teimouri, 2010). The emergence of behavioral finance literature generally and of various structures that shape the behavior of investors, is studied. It is important to indicate that investment decisions are not only influenced by economic indicators and rationality but issues such as investment horizon, risk tolerance, confidence and assurance that investing in options and the process of investing in the market and etc., also has a significant effect on investment behavior and decisions and shape their investment style. Thus, this study attempts identify factors that influence the behavior of financial investors, and how each of them evaluated the behavior of investors.

4. Background of the study

Khademi Mehdi, (2004) in a study entitled "Evaluation of factors influencing the decision of shareholders in Tehran Stock Exchange." To the conclusion that political factors, psychological, economic, and domestic shareholders have the highest impact on decision making. Khoshnod Mehdi, (2004) in a study entitled "Identification and ranking of individual investors and institutional influencing decision making in Tehran Stock Exchange" to investigate and identify the actions and reactions of

investors in different market conditions discussed is based on the market trend and forecast indicators to policy-makers to adopt a more correct decisions. Hamdyan (2007) Factors affecting the stock price behavior and the behavior of shareholders in Tehran Stock Exchange and the relative importance of various factors on investors' decision is examined. Based on these findings, psychological factors, and the highest degree of influence on decision-making by investors in the Tehran Stock Exchange. Also Farrokhnia (2004) investigated the role of accounting information in decision-making stakeholders, the results of his research, investors in the Tehran Stock Exchange in the decision to buy or sell the stock price of a particular model based on technical methods do not use or fundamental. Also Javadi (2008) investigated the effect of macroeconomic variables, the paper concludes in our country's macro environmental factors in the success or failure of a company or organization, worsened by internal factors and its management. Hosseinzade Bahrain (2004) in a study on "Factors affecting the security of investing in Iran" has been discussed. This is a descriptive study using statistics published by the International Centre was designed to measure investment risk. Ali Saidi (2007) in another study "model to explain the behavior of investors in the securities market Tehran reaction (reaction excessive and less than)" came to the conclusion that investors, the notion of market efficiency and on the basis of the estimate, and yield estimation based on the stock price as well as commenting on the study concluded between the index and returns the response behavior of the current flowing. Rubin and Brlayr (2012) as the modeling of the behavior of investors to provide a framework for decision-making behavior of investors in the stock market have done. The results are expressed as the parameters of the model as a mechanism to evaluate the interests and preferences of investors. Hoffman et al (2012) in a study entitled vision individual Investors and their behavior during the financial crisis, to test the behavioral changes associated with the risk appetite of investors and decide on the financial crisis in 2000 and 2009 is discussed. The findings indicate that investors continue its activities during the crisis only highly risky decision that can be moved. Michael et al (2013) to study the psychological behavior of investors' rights during the financial crisis, behavioral changes during the global financial crisis among financial investors have paid. The main objective of this study was to identify factors that influence the behavioral conduct during the crisis. Barber and Edin (2011) in an act of individual investors (private) to create a view of the behavior of individual investors in the stock market have done. The situation on the financial conduct of investment behavior that is effective. Salimof (2012) other research has determined the behavior of individual investors in the portfolio, to investigate the factors affecting stock options, stock type, amount and how to buy stocks and the risk of these

decisions is discussed. In this study, factors such as demographic factors and social factors influencing investment behavior characteristics is studied.
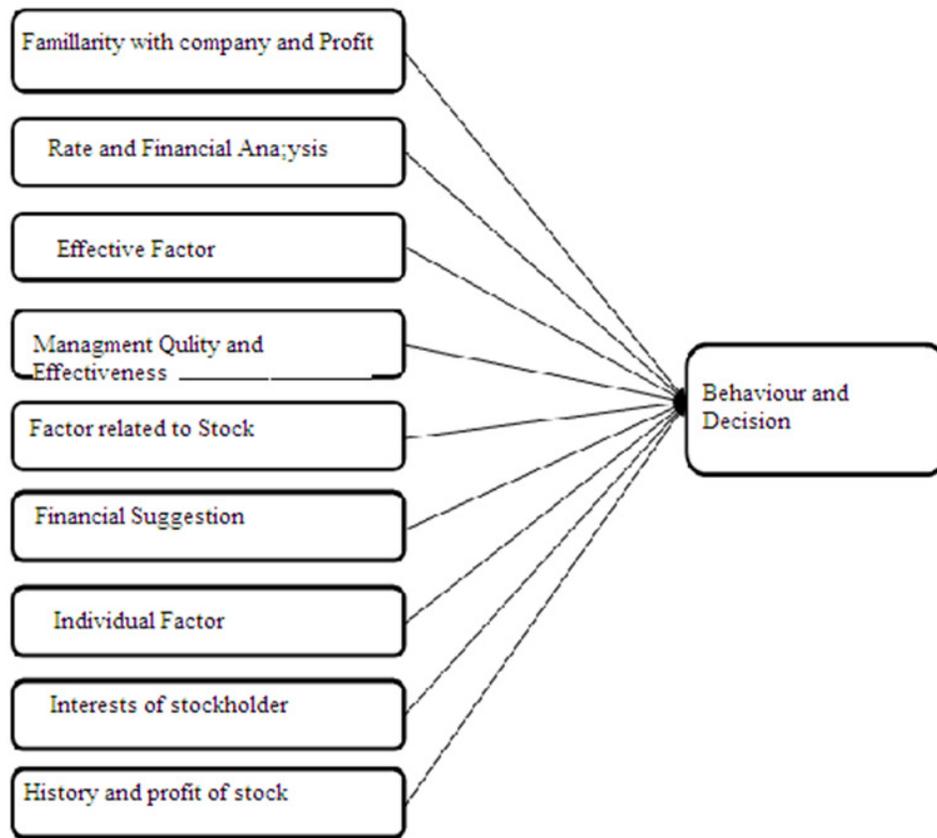
5. Conceptual Model

Fig. 1: Conceptual Model (Resource: Bennet E and Selva M, 2013)

6. Methodology

The purpose of the study and application of the method, the cross - is a survey. The purpose of this study is the analytical description of a situation or a series of circumstances. Data collected from the survey, the methods used descriptive and inferential statistics. To study the frequency and distribution characteristics of statistical data and to define variables and plotting graphs and tables etc., as well as descriptive statistics for testing hypotheses and examine relationships between variables, correlation tests and comparative and other tests are needed to help inferential statistics using SPSS statistical analysis software was used. The population studied in this research, financial investors is active in the Tehran Stock Exchange. The cluster random sampling method was used, so that the selection of the cluster that is eligible, random sampling is done. 239 is the number of samples in this study. In this study, the method of taking tool with is a library of

available primary and secondary sources (books, articles, websites, etc.) a questionnaire collect information from the field of action. Since the five-item Likert scale range is used for this option to be scored from 1 to 5 were considered.

7. The results

To ensure the quality of information in the field method, the reliability of the 36-person limit was assessed by Cronbach's alpha and the alpha value was estimated to be 0.805 which represents a component of the internal consistency of the questionnaire was the distribution of the questionnaire was conducted in the community. Before testing the hypotheses and investigate the correlation between test the normality of the data was performed and is based on the results obtained, the abnormal distribution of data and spatial data, the Spearman correlation test was evaluated. Following the results of hypothesis tests are presented and examined separately.

Table 1: The first hypothesis test results: there is a significant relationship between behavior of financial investors familiar with the company and its performance.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.236	0.000	Accept Hypothesis

Spearman test, the amount of 0.000 Sig = respectively. Because the value of 0.05 Sig <, therefore, the null hypothesis is rejected and the other will be accepted. The relationship between the behavior of financial investors and familiarity with corporate and income from shares there because of the test and the Spearman correlation coefficient was 0.236, this type of relationship is positive. Thus, the first hypothesis is confirmed by the 95%. According to the results of the analysis showed that the behavior of investors in the investment information or sale of shares by the company and the location of cognitive capital, or acquired. Obviously, the knowledge and familiarity with the company and reduce the risk of investing the proceeds from equity investment these two factors have a direct relationship with each other that their relationship was confirmed in this study. It seems to be due to this factor when investing in the stock market is more important.

Table 2: The second hypothesis test results: there was a significant relationship between the behavior of financial investors and financial analysis.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.236	0.000	Accept Hypothesis

Spearman test, the amount of 0.000 Sig = respectively. Because the value of 0.05 Sig <is, therefore, the null hypothesis is rejected and the other will be accepted. The relationship between the behavior of financial investors and financial ratios and analysis; because of the test and the Spearman correlation coefficient was 0.235, this type of relationship is positive. Thus, the second hypothesis is confirmed by the 95%. It is based on the findings of investors investing in or the buying and selling of shares, affected by the financial and technical analysis, investors and financial analysts. Investors should be clear and rational behavior more dependent on the financial analysis of corporate performance is in this study, the relationship between these two factors was approved at a high confidence level. Seems to be the most important factor in the behavior of investors, especially professional investors and financial analysts, the company's performance and financial analysis, the importance of this factor further consideration should be financial investors.

Table 3: The third hypothesis test results: there was a significant relationship between the behaviors of financial investors with psychological factors.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.216	0.001	Accept Hypothesis

Since the Spearman correlation coefficient was 0.216 for the test, the amount of 0.05 Sig <is this type of relationship is positive and significant. Thus, the third hypothesis is confirmed also present in 95%. According to the results of hypothesis testing, the behavior of investors in the investment or buy and sell shares will be affected by psychological factors. Psychological factors can change the rumors about stock prices, interest rates, etc., or some advice and predicted that because there is reasonable cause but the behavior and effective investment decisions.

The most common cause of investors does not apply and most of the risk incurred by the issue will be on them.

Table 4: The fourth hypothesis test results: there is a significant relationship between management the behavior of financial investors with quality and efficiency.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.305	0.000	Accept Hypothesis

The Spearman correlation coefficient was 0.305 for the test, the amount of 0.05 Sig <is this type of relationship is positive and significant. Thus, 95% of research in the fourth hypothesis is confirmed. Fourth hypothesis test showed that the behavior of investors in the investment or purchase and sale of shares, subject to performance management and how their decisions will be on board. Investors when deciding on a stock's performance and behavior management are analyzed, this analysis of how decisions about stock prices, dividends, or internal performance compared to competitors and the Management Company or industry. Obviously, performance management to improve the attitude of investors in selecting stocks for investors will participated.

Table 5: The fifth hypothesis test results: there is a significant relationship between the behaviors of financial investors with an expected value of the stock.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.276	0.000	Accept Hypothesis

The Spearman correlation coefficient was 0.276 for the test, the amount of 0.05 Sig <. Accordingly, the relationship is positive and significant. Thus, 95% of research in the fifth hypothesis is confirmed. One of the most important factors in the decision purchase and investment among financial investors

is the expected value of the stock. Since the purpose of investment gains and income investors, it is obvious that the expected value of the shares to be used as an important factor in their analyzed. It is often carried out on a contingency basis and

sometimes affect the behavior of investors, but what seems to be the purchase and sale of shares in the stock market depends on the investor's analysis of the expected value of the shares is done.

Table 6: The sixth hypothesis test results: there was a significant relationship between the behaviors of financial investors with financial experts.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	196	0.002	Accept Hypothesis

The Spearman correlation coefficient was 0.196 for the test, the amount of 0.05 Sig <. Accordingly, the relationship is positive and significant. Thus, 95% of research in the sixth hypothesis is confirmed. Behavior of most investors when investing in or the buying and selling of shares, will be dependent on the advice of financial experts. Since all investors,

especially investors and stock market conditions are not normally be analyzed and sometimes do not have access to the required information, in its decision on the purchase and sale of shares and investments, financial experts and brokers use and sometimes all the options and sell their shares to leave them.

Table 7: The seventh hypothesis: test results showed there is a significant relationship between financial investors to predict individual behavior and related factors.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.311	0.000	Accept Hypothesis

The Spearman correlation coefficient was 0.311 for the test, the amount of 0.05 Sig < this type of relationship is positive and significant. Thus, the seventh research hypothesis is confirmed by the 95%. Each of individuals with regard to the analysis of financial and non-financial and financial experts

and other investors, can predict the future changes in the capital markets and speculation has its own arc according to take the decision to buy or sell, in principle, cannot be defined for these logical backing and much will depend on how people feel about the coming changes.

Table 8: The eighth hypothesis test results: there is a significant relationship between the behaviors of financial investors with the desires of the customer.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.421	0.000	Accept Hypothesis

The Spearman correlation coefficient was 0.421 for the test, value of 0.05 Sig <, it is a significant and positive relationship. Thus, eight research hypotheses are confirmed in 95%. Based on the findings, the behavior of investors when investing in or the buying and selling of shares, will be influenced by the behavior of other investors. The correction

factor, which is also the title of herding behavior or behavioral bias, more in times of financial crisis or the lack of stability and confidence to show that in the current situation investor sentiment somewhat dependent interactions and the interactions of other investors.

Table 9: The ninth hypothesis: test results shown there is a significant correlation between the behavior of financial investors in history price and performance.

Number	Type of test	Correlation coefficient	Sig	Results
239	Spearman	0.459	0.000	Accept Hypothesis

The Spearman correlation coefficient was 0.459 for the test, the amount of 0.05 Sig <is, This type of relationship is positive and significant. Thus, 95% of research in the ninth hypothesis is confirmed. One of the factors influencing the behavior of financial investment in the sales and financial transactions is the price change and the change curve. Judging by the rate of change of the price curve at different times can be expected to anticipate changes and decisions. As expected, this factor as one of the factors influencing the investment decision will be effective. One of the scientific methods study the internal structure of a set of indicators and measures of validity, using structural equation modeling the estimated loadings

and the relationships between a set of indicators. To examine the research model and demonstrate the correlation between the variables, the relationships based on structural equation modeling was used.

Based on the results obtained from the analysis of the data, the model fit indices indicated. The fit of the model fit indices in good condition; because of the degree of freedom chi-square (χ^2 / df)) is equal to 2.281, which is less than the allowable level 3 and RMSEA value equal to 058. Which is less than the allowable value is 0.08. The results of the structural model assumptions are shown in the following tables.

Table 10: Confirmatory factor analysis and path analysis

Factor Analysis			Path analysis			
Questions (items)	factor Load	T-statistics	Variable	Path coefficient	T-statistics	Results
Stock return	0.56	8.304	Cognitive	0.033	1.048	Rejected
Learn about the products and services	0.719	8.805				
Earnings per share	0.456	6.385	Financial Ratio Analysis	0.004	2.103	Accepted
Cash flow per share	0.426	6.075				
Current assets to current liabilities	0.393	6.733				
Turnover ratio (accounts receivable, accounts payable)	0.58	6.096				
Interest coverage ratio	0.615	8.319				
Debt-to-equity ratio	0.686	8.761				
Quality assets and return on assets	0.698	8.808				
Recommendation of friends	0.63	7.098	Psychological factors	0.143	2.68	Accepted
Emotions Investors	0.341	6.23				
The industry and industry-related stock	0.425	7.652	Quality and Performance Management	0.006	2.166	Accepted
Manager, Administrator and expertise	0.639	10.896				
Quality Management	0.666	11.27				
Book value	0.769	12.601	The expected value of the shares	0.094	1.976	Accepted
The expected value of shares	0.76	12.497				
The potential to achieve the target	0.826	13.29				
Recommendations based on the analysis and investigation reports	0.739	12.228	Comments of Financial experts	0.104	2.476	Accepted
Recommended brokers	0.823	13.254				
Recommendations stock market operators	0.825	13.271				
Purchase based on their emotions	0.368	3.906	Predict individual and emotional factors	0.12	2.338	Accepted
Buy based on the choice of major companies and institutions	0.565	6.683				
Past performance share prices	0.601	6.695	History and stock price performance	0.137	2.169	Accepted
Dramatic changes and market shares	0.702	6.708				
The decision to buy based on the purchasing market	0.611	8.987	Sentiment and the other buyers	0.243	4.658	Accepted
Purchasing decision regarding the purchase of professional investors	0.697	6.315				

Qualitative indicators are shown to fit the model suggests that the validity of redundancy or redundancy (CV Red) any later version, and also sharing credit index (CV Com) has a positive value, so the measurement model and the structural model is of good quality. R2 values of the model are also quite a bit more than 0.3. The results show that the independent variables have the ability to estimate 30% of the variability

Table 11: Before fitting the parameters of the relationship between variables

Variable	CV Red.[†]	CV Com[‡].	R Square
Meet the Company	0.113	0.113	0.000
Financial Analysis Ratio	0.083	0.083	0.000
Psychological factors affecting	0.069	0.069	0.000
Quality and Performance Management	0.086	0.086	0.000
The expected value of the shares	0.5	0.5	0.000
Financial experts' comment	0.086	0.86	0.000
Predict individual and crew	0.019	0.19	0.000
Tendencies and trends Buyers	0.147	0.147	0.000
History and price performance	0.268	0.268	0.000
Behavior and investment decisions	0.155	0.063	.302

[†]Construct Crossvalidated Redundancy

[‡] Construct Crossvalidated Communality

Table 12: Assessment index of fitted model

Index	Index value	Acceptable value
§GFI	0.963	0.9>
**AGFI	0.941	0.9>
NFI	0.885	0.8>
NNFI	0.929	0.8>
CFI	0.935	0.8>
RFI††	0.875	0.8>
IFI	0.935	0.8>
Standardized RMR	0.041	0.05<

1) GFI and AGFI the absolute fit indices are known. These indicators do not depend on the sample size and relevant information about the models fitted to the extent provided by the near full fitness. The fitness and propriety of modified Index value should be greater than 0.9. In the model, both the index value is greater than 0.9, which indicates the suitability of the model.

2) The relative fit indices including NFI, NNFI, CFI, RFI and IFI's. These indicators are sensitive to the size of the model. The value of this indicator takes place 0.8. Most of the above mentioned model parameters are more than 0.8 and which indicates the suitability of the model.

3) Standardized RMR component is absolute fit indices. Standardized RMR value, the less the better is because the index is a measure of the average difference between the observed data and model data. The model was 0.041 = Standardized RMR value that represents the goodness of fit for the model

8. Summary and conclusions

The purpose of this study was to investigate the factors influencing the behavior of financial investors in financial markets. Investors should review the broad principle when buying or selling shares they do, because they have the cash assets are converted into shares. Regardless if they are to invest in a range of factors, not the desired result ever. This issue is discussed further in countries that do not exchange performance. In other words, the market price of the securities is not an appropriate indicator of the real value of the securities. According to the results of the research, the relationship between the variables in this study were approved the problem and the positive relationship between the variables mentioned approved but it should be noted that the impact of each of them varies among investors, risk factors and financial analysis, financial experts advise investors to look at the impact was greater. Generally speaking, the various factors on behavior and effective financial and investment decisions will be that these factors can be related to capital market conditions or individual investors. What is important in this regard to the effective and efficient use of existing

conditions and do not ignore these factors when investing.

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Adjusted Goodness of Fit Index (AGFI)
Relative Fit Index (RFI)

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