# Explanation of the Role of Investors' Emotional Inclination and the Disclosure Quality on the Investment Behavior of Firms Listed on Tehran Stock Exchange

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## ABSTRACT

Market's lack of adherence to classical financial theories like the efficient market as well as other classical theories has made financial researchers and analysts seek for ethology in the stock market. Derived from modern financial theories and conflicting classical financial theories, investor's emotional inclinations may explain many abnormalities in the stock market. Research in this regard reveals that the investor's emotional features may affect the level of investment through affecting the investment behavior in the firm. Moreover, better disclosure of information can affect the firm's investment behavior via affecting emotions. This study is mainly aimed at investigating the relationship between investor's emotional inclinations, the investment level, and information disclosure quality. To this end, the information of 98 firms listed on Tehran Stock Exchange over a 7-years period (2013-2019) was investigated using a multivariate regression model based on the panel data method. The model estimation results revealed that emotions may affect the investment behavior of small firms and the firms' better disclosure quality has a significant relationship with the small firms' investment behavior through affecting emotions. These relationships were not confirmed for large firms. Furthermore, the significance of the whole regression model may be concluded given F statistic. Based on Durbin-Watson statistics, there is no strong autocorrelation between the research variables.

## Keywords:

Efficient Market, Investors' Emotional Features, Investment Behavior, Disclosure Quality

# 1. Introduction

Optimal investment of the company in assets with positive net present value can reduce investors' risk in stocks for investors. Reducing stock risk increases stock liquidity. In other words, optimal investment increases liquidity by changing the pricing strategy. Liquidity expands profitable investment stocks, thereby increasing investment opportunities in the company. Backer et al (2006). And investors in these conditions can buy and sell their shares in the capital market with more confidence. Increasing the level of investment of the company, which occurs as a result of the behavior of the company's investors, affects the value of the company by increasing the efficiency of investment.Companies with financial constraints are more risk-averse, and investing more in such companies increases liquidity in these companies by reducing stock risk, in other words, reducing corporate risk improves the liquidity market maker. Moonsoo Kang Et al (2017). Investment behavior effectively affects the level of investment in the company, which can directly affect the value of the company. In classical financial theories, efficient market, rational investors, market competitive advantage, full disclosure of information and other assumptions. Determines the stock price and therefore the value of the company in the market. But in reality this is not the case. With the development and improvement of economic systems, investors' expectations about the value of the company's stock enable managers to make optimal investment decisions. There are many indications in the market that investor sentiment plays an important role in shaping asset prices. Investor emotions affect the level of investment by influencing investor behavior, and emotions by influencing disclosure can also affect investment behavior. zhang yanu and eko koenig (2017). When emotional inclinations are low, managers increase their estimate of future earnings, and when emotional tendencies are high, these estimates decrease. Nai Tai and Sugata (2006). The quality of disclosure, by influencing information symmetry, helps investors make rational investment decisions. Relevant, timely and non-partisan information can influence investment behavior, investment efficiency and thus the value of the company. By disclosing information in a timely manner, managers can help investors make optimal and rational decisions away from false feelings and emotions. Reasonable investors lead the market to greater efficiency, and an efficient market can better allocate resources. optimal allocation of resources resulting from investment behavior. Determines the level of investment and affects the value of the company. The quality of information disclosure can reduce the availability of confidential information, as well as increase the quality of disclosure of competition between informed traders before disclosing information, which results in more private information being reflected in prices, resulting in a lack of reduces confidence among informed and uninformed investors. therefore, financial reporting can reduce information asymmetry and improve price efficiency through full disclosure, and thus increase stock liquidity. kurdistani et al. (2018). Investing in the stock market is affected by various factors in terms of risk and return, and investors to invest in their decisions are influenced by different factors according to their level of knowledge, interests and experiences. And these factors can affect the type of decision they make and overshadow their buying behavior. The behavior of investors in the stock market includes buying and selling and leaving the stock market. nikomram (2012).The behavior of investors in the stock market, the way decisions are made, the allocation of monetary resources, pricing and valuation, affect the returns of companies. Have their own expectations and as a result show special behaviors when investing in financial markets. saeedi and farhanian( 2012). Behavioral finance describes how investors behave and why their behavior affects financial markets and helps investors learn how to behave rationally. This approach addresses this issue. Unlike standard financial theories, behavioral and cognitive tendencies can affect the price of financial assets. Among the problems of the capital market that affect sales and purchases, we can name access to information bias, distrust bias and other biases. Samadi et al(2012

# 2. Theoretical foundations and research background

## 2.1. Emotional characteristics of investors

In investment issues, the type of decision made by investors and the factors influencing their decision making are very important. Financial theories have had two different approaches in recent decades. The first approach is the classical approach, which states that investors in They make rational decisions and the market is efficient. However, with the emergence of anomalies in the capital market, the assumption of rationality and efficiency of the market was questioned. Showed itself in the price of assets. The investor's feelings stem from the boom and bust of the market. If the market is booming, investors tend to buy stocks even higher than the real price. In this case, investors tend to take risks, and this indicates confidence in The market and economic conditions, and in these conditions, they expect the market to continue the trend and predict that prices will rise again (Kim et al. 2016).

People under the influence of psychological and behavioral factors react differently to information, which causes abnormalities such as overpricing and underpinning of stocks (Carvalho et al., 2016). There is a lot of evidence and research confirming the effect of emotions on prices, and on the other hand, stock liquidity is a very important factor in decision making, which explains the liquidity factor of stock price changes (Hejazi et al., 2015). Given the theoretical links between investor sentiment and stock liquidity, this relationship lacks empirical evidence. The liquidity literature focuses on its impact on stock returns (Chordia et al., 2015). Research that can explain the relationship between emotions and other influential variables such as market liquidity has a major impact on the decisions of capital market participants and also helps market development. Baker and Worgler (2012) state that investors 'feelings are a belief about future cash flows and that investment risks are not justified by existing realities (fundamental factors). They also state that investors' psychology of decisions Modulates them and the investor's feelings can be considered as one of his psychological aspects. Baker states that investors choose safer stocks at times when emotions are low, that is, with higher liquidity. Of course, this can be a risk-averse investor tendency. Companies with stable cash flows and low information symmetry can participate. Be safe. Investors feel simple pessimism or optimism about future cash flows.

## 2.2. Disclosure Quality

The main purpose of disclosure is to inform analysts and investors about the amount and timing of future cash flows so that financial analysts and investors can better predict future profitability. Therefore, better transparency and disclosure is beneficial to shareholders. Research shows that a good disclosure improves analysts' accuracy in predicting future earnings. In other words, companies with high disclosures have a stronger relationship between stock returns and earnings future than companies with low disclosures. Desai et al. (2004) Accounting information and better disclosure quality through the identification of better investment opportunities by managers and investors, leads to the selection of plans and reduce the moral risk of managers and increase liquidity and reduce information asymmetry that improves performance Economic institution and increase shareholder returns. Bashman and Smith (2003) Adequate disclosure increases stock liquidity and reduces risk by reducing transaction costs or increasing demand for stocks, thereby reducing expected returns. Spinoza and Tambeta (2007). Managers, due to their optimistic approach, tend to invest funds in their personal interests, as a result of which interest payments are reduced and agency costs are increased. Investors have the ability to detect the presence or absence of free cash flows and reduce the possibility of smoothing dividends. Rashidi Baghi (2018).

## 2.3. Investment behavior

Investment is the present value of money over a period of time in order to generate future returns that reward the investor for receiving funds, the expected rate of inflation, and uncertainty about future payments. An investor can be an individual, a government fund, a pension fund, or a company. Real Estate (Riley and Brown ، 2017). Profitable investment is considered as the lifeblood of the company and a fundamental factor in determining its value. Based on existing theoretical foundations, it is expected that the value of the company is a function of the present value of its future cash flows, which is strongly affected by its investments. Typically, investment decisions in companies are made under the subject of capital budgeting, which is the planning, evaluation and selection of investment projects that have returns in the long run. In other words, capital budgeting, program Planning is a cost of capital, and capital expenditures are costs that are spent on long-term investments.

Capital budgeting decisions can be classified into seven groups:

1) Replacing worn or obsolete capital expenditures with new capital expenditures

2) Replacement of current fixed assets (machinery) with new equipment to reduce costs such as raw materials, labor, fuel and electricity
3) Expanding current products in the market by increasing production
4) Expanding the product sales market through the production of new products and its marketing
5) Employee safety projects and insurance policies
6) Environmental reset projects to prevent environmental pollution
7) In general, any investment in long-term assets whose benefits are also profitable in the long run (Jahandideh 2018)

## 2.4. Research background

Saadati, Sirous and Asgar Pakmaram (2020) in a study entitled The Impact of Free Cash Flows, Board Independence and the Concentration of Institutional Ownership on the Investment Level of Companies stated that free cash flows have a positive and significant effect on the level of investment. While the other two variables, namely the independence of the board of directors and the concentration of institutional ownership have a negative and significant effect on the level of investment of the company.

Borhan and Jill (2019) in a study entitled Cash Asset and Over-Investment Behavior in Companies with Problem Managers, examined the empirical relationship between cash holdings and investment. There are troubled managers and corporate governance is weak, the incentive to maintain liquidity is higher and as a result they invest too much, which may lead to a decrease in investment efficiency. These findings are consistent with the agency theory.

Jing Hee et al. (2018) in a study entitled voluntary disclosure, mandatory disclosure and cost of capital, examined the relationship between cost of capital and voluntary disclosure and mandatory disclosure. Optional and mandatory disclosure are also included. They also divided mandatory disclosure into two categories: periodic mandatory disclosure and event-based disclosure.

Dabata et al. (2018) examined the relationship between the emotional characteristics of investors and the stock market liquidity of emerging countries. The results of their research showed a significant relationship between investors' feelings and the stock liquidity of these countries. Transition can be an effective source of changes in corporate stock liquidity. They believed that these results are consistent with the relevant theoretical framework.

Sabramaramanian and Harper (2018) studied the relationship between investors 'feelings and cash flow fluctuations. The results of their research showed that there is a negative relationship between investors' feelings and companies with high cash flow fluctuations. With fluctuations in high and low cash flows as an independent variable and investor sentiment was considered a dependent variable. They believed that the results are effective in measuring and classifying companies' risk.

Monso Kang et al. (2017) in a study entitled The role of corporate investment in stock liquidity concluded that with increasing corporate investment, the company's risk is reduced, which in turn improves stock liquidity. As market risk increases, market-making behavior in stock liquidity changes.

Kurdistani et al. (2017) in a study entitled The effect of disclosure quality on information asymmetry, divided 90 manufacturing companies into two groups with high ratio and low ratio in terms of market value to book value ratio and the effect of this ratio on the relationship between disclosure quality and Asymmetry was examined for both groups. The results of their research showed that there is a significant negative relationship between the quality of disclosure and information asymmetry.

Buzhou and Feng Ni Yu (2016) studied the effect of investor emotions and accounting information on stock prices. They stated that both investor emotions and accounting information can be effective in explaining stock prices. Accounting information for income-generating stocks Stable is reliable while investor sentiment shows an asymmetric effect on stock prices.

Kim et al. (2016) examined investors' emotional decisions and voluntary disclosure. Their research results showed that voluntary disclosure in the company has a positive relationship with investors' emotional decisions. Kumari and Mahakad in 2016 in a study on the relationship between investors' emotions and They examined the fluctuations of stock returns of Indian stock companies. Their findings highlighted the importance of investors' feelings in explaining fluctuations in stock returns of the Indian market. They observed the stability and asymmetry of fluctuations in the Indian stock market. Their findings showed that The market response to a negative or downward emotional shock is greater than a positive or upward shock.

Li Liang (2016) in a study entitled Investor Emotions and Stock Performance concluded that companies with investors with high emotions get abnormally positive returns and with low emotions get abnormal negative returns. Emotions can satisfy investors. In a 2015 study, Lee Yu examined the effect of investors' emotions on stock market liquidity. Li Yu's findings were consistent with the theoretical background that investor sentiment could affect liquidity. According to Li Yu's research, market trading volume also increases when the sentiment index is bullish.

Zhen Chen et al. (2015) in a study entitled Free Cash Flows, Over-Investment, and Corporate Governance found that by investing in agency costs, when over-flowing cash flows are high, over-investment also increases. Other free cash flows are sensitive to investment and as investment increases, their research becomes more visible. Their research results also showed that corporate governance also has a significant impact on investment.

Cooper et al. (2015) in a study entitled the relationship between investor emotional inclinations and the level of disclosure in companies, examined the impact of disclosure policies in companies on investors' emotional decisions. Their research results show that in periods where There is a high sentiment among investors, managers reduce the disclosure of company information and vice versa.

Huang et al. (2015) in a study examined the role of investors 'emotional inclination in predicting future returns. They concluded that the index of investors' emotional inclination is both economically and statistically predictable for future returns and cross-sectional returns. It also has a future. Investors' emotional tendencies also have the ability to predict cash flows.

Rashidi Baghi Mohsen (2018) in a study entitled The effect of disclosure quality and information environment quality on the distribution of dividends, concluded that the distribution of dividends is a function of the quality criteria of disclosure. When the level of quality of disclosure changes, the quality of information also changes and affects the smoothing of dividends.

Rostami et al. (2015) in a study entitled "Investigating the factors affecting the behavior of investors in the desire to reinvest" state that investment liquidity has the greatest impact on investment satisfaction, followed by profitability, investment security, capital position Investment, place of investment and investment rules and regulations affect investment satisfaction.

Chen and Lin (2013) investigated the relationship between management optimism, investment efficiency and firm value. They examined the effect of managerial optimism levels on improving investment efficiency and firm value when firms tend to invest more Their results showed that underinvestment in a company with high optimistic management decreases, resulting in improved corporate investment performance, leading to increased Becomes the value of the company.

## 2.5. Innovation and Necessity Research

Investing in the capital market requires the investor to accept its risk. So that the investor expects any higher unit of return, he must also accept more risk, and this is obvious in the capital market, and the investor is aware of this. The subject enters the capital market and makes its buying and selling decisions based on the efficiency of the market in distributing information. Now, in some cases, the capital market experiences conditions that confront the market with anomalies. One of these conditions Investors' excitement is in the face of market conditions that undermine market efficiency and affect investment decisions. In such a situation, market agents can manage investment emotions with the right decisions and create favorable conditions for trading in the capital market. The present study examines the conditions that are innovative with various researches that have been done in this field for the following reasons.

1) Examines the effect of disclosure of company information on the emotional tendencies of investors, which has not been tested in any research in the country.
2) Also in this study, the cumulative movement index of cash returns according to the research of Zhang Yanu and Eco Qing (2017) has been used to measure the variable of emotional characteristics, which is different from the

criteria that have been done in research in this field.

## 3. Research hypotheses

1) There is a significant relationship between the emotional tendency of investors and the investment behavior in companies with a market value to low book value ratio.
2) There is a significant relationship between the emotional tendency of investors and the investment behavior in companies with a ratio of market value to high book value.
3) The quality of disclosure affects the investment behavior of companies by affecting the emotional orientation of investors in companies with a market value to low book value ratio.
4) The quality of disclosure affects the investment behavior of companies by affecting the emotional orientation of investors in companies with a ratio of market value to high book value.

## 4. Research methodology

This research is an applied research with a deductive-inductive approach. In terms of how to deal with the problem and collect information, it is a descriptive observational research that examines the relationship between variables through correlation analysis. Data perspective is a quantitative research that can play an important role in the decision-making process of investors. As a result, this research is also a fundamental and applied research. The statistical population of the research is the companies listed on the stock exchange and the sample The selection, which uses the systematic deletion method and taking into account the data constraints, includes 98 companies in a 7-year period from 1992 to 1398. In selecting the sample, companies have been considered that have characteristics such as the date of admission to the stock exchange before 1992 and have been on the list of listed companies until 1998. Also, the end of their fiscal year should be the end of March, and Not to be included in investment and financial intermediation companies.

## 5. Research model and research variables

To test the first and second hypotheses, the following models are taken from the research of Zhang Yanu and Eko Koenig (2017). The models used by Zhang Yanu and Eco Koenig are from the research model of Polak, Sapinza, Baker, and Stein (2004).

$$Inv_{i,t} = \alpha_1 Sent_{i,t} + \alpha_2 LIQ + \alpha_3 \text{Tobin's Q} + \alpha_4 LOSS + \alpha_5 ROA + \alpha_6 CFO + \alpha_7 ROE + e_{jt}$$

$$Inv_{i,t} = \beta_1 Sent_{i,t} + \beta_2 Sent_{i,t} * ID_{i,t} + \beta_3 LIQ + \beta_4 \text{ Tobin's Q} + \beta_5 LOSS + \beta_6 ROA + \beta_7 CFO + \beta_8 ROE + e_{jt}$$

**Investment Behavior (INV) (dependent variable):**
The level of investment of a company is measured based on the paper by Baker and Worgler (2007) that the level of business investment and purchase of fixed assets, intangible assets, long-term investments and paid net cash divided by the total assets.

**Investor Emotional Tendency Index:**
The index of emotional tendency of the investor (independent variable) is that according to the research of Zhang Yanu and Eco Qing (2017), the index of movement, which is the cumulative return of the company for three to 12 months, has been used.
SENT=$\sum Rjt - 1$

**Q tobins ratio:**
One of the tools to measure the performance of companies is obtained by dividing the market value of equity and book value of debts by the book value of total assets.

**Stock liquidity:**
It is a liquidity index that is measured using the criterion of high relative frequency. High frequency criteria measure the amount of non-liquidity for each transaction and then by averaging the numbers obtained in During the day, the amount of daily liquidity is obtained. Therefore, due to the high volume of data, in high frequency criteria, this criterion is more accurate than other criteria. To calculate this criterion according to the following

relation, the difference between the bid price must be Buy at the bid price of the sale to be divided by the average of these two prices. Following the research of Amstrang (2011) Justin (2007) Hamed, Gang and Viswanathan (2010)

**Loss:** From control variables and virtual variables, if the company is a loss, we put the number zero and otherwise one.

ROA: An indicator of how profitable a company is depends on the total assets of that company. In other words, it gives us an idea of efficient management in relation to the use of assets to generate profit (productive assets) by dividing the annual profit by the total assets. The company is calculated and expressed as a percentage.

**CFO:** According to Accounting Standard No. 2 of Iran, cash flows arising from operating activities include cash inflows and outflows resulting from the main and continuous activities generating operating income of the business unit, as well as those cash flows that by nature can not be Relate directly to other categories of cash flows in the cash flow statement (Karami et al. 2014)

## 6. Research findings

### 6.1. Descriptive statistics

What the descriptive statistics of the research on the level of investment of the company show us is the very high distribution of sample companies in the amount of investment made in these companies, which justifies the separation of sample companies into two large and small portfolios in this research. Descriptive statistics about other variables, minimum value, maximum, maximum, average and other characteristics of research variables.

**Table 1: In this table, descriptive statistics of research variables are presented**

| Variables | Average | Middle | MAX | MIN | Standard deviation | skewness | kurtosis |
|---|---|---|---|---|---|---|---|
| Investment level | ۰,۷ | ۰,۵۲ | ۰,۵۷ | ۰,۱۶ | ۸,۰۳ | ۲,۸۹۹ | ۲,۳۶۲ |
| Emotional tendencies of investors | -۰,۲۷۲۱ | -۰,۴۸ | ۰,۳۲۸ | -۰,۶۱ | ۸۹,۳۶ | ۱,۰۱۸ | ۳,۶۶ |
| Stock liquidity | ۰,۲۶ | ۰,۲۵۴ | ۰,۵۴۲ | ۰,۱۳ | ۱۱۸,۸۸ | ۰,۱۰۸ | ۲,۳۳۴ |
| Disclosure Quality | ۹۴,۱۲ | ۹۴,۳۸ | ۹۷,۸۳ | ۳۸,۱۳ | ۲,۶۹ | ۰,۱۴۷ | ۲,۸۷۲ |
| Q tobins ratio | ۱,۷۴ | ۱,۶۸ | ۱۲,۳۵ | ۰,۰۶۵ | ۱,۲۵ | ۲,۸۵۴ | ۳,۲۴۰ |
| Loss | ۰,۸۹۲ | ۱ | ۱ | ۰ | ۰ | ۲,۵۳ | ۳,۶۵ |
| ROA | ۰,۷۹ | ۰,۶۲ | ۰,۹۰ | -۱۰۳,۸۲ | ۱۷,۲۳۶ | -۱,۷۵۹ | ۱۵,۰۴۹ |
| ROE | ۰,۳۶ | ۰,۳۲ | ۱,۲۶۲ | -۱,۳۵ | ۰,۲۸۲ | -۱,۹۷ | ۱۴,۲۶ |
| CFO | ۰,۳۱۸ | ۰,۲۰۰ | ۵,۵۱۰ | -۱,۴۱۰ | ۰,۵۰۴ | ۳,۱۶۰ | ۲۴,۳۳۵ |

### 6.2. Checking the normality of variables

Most of the statistical analyzes are related to random variables and societies with normal distribution. But if the data does not have a normal distribution but you use parametric methods based on the normal distribution, your findings in research design and statistical analysis of the data may be misleading or erroneous. Therefore, performing a test of normality or confirming the assumption of data normality is a key point in deciding to choose a method for statistical inference based on random samples. The results show that all the main variables of the research are normal.

**Table 2: Test results for normality of variables**

| Variables | Jarque-Bera Test | Prob |
|---|---|---|
| Investment level | 5.03 | 0.215 |
| Emotional tendencies of investors | 3.2 | 0.14 |
| Stock liquidity | 2.24 | 0.16 |
| Disclosure Quality | 3.40 | 0.175 |
| Q tobins ratio | 4.25 | 0.186 |
| LOSS | 3.01 | 0.125 |
| ROA | 4.15 | 0.18 |
| ROE | 4.20 | 0.19 |
| CFO | 4.24 | 0.25 |

## 6.3. Examining the meaning of variables

Stationary test is mainly performed to prevent false regressions. To prevent false regression, the variables must be constant. Otherwise, you should use the difference of variables, which are usually constant. The meaning or invisibility of a time series can have a serious impact on its behavior and properties. If the variables used in estimating the model are unstable, while there may be no logical relationship between the independent and dependent variables, the coefficient obtained can be very high and cause the researcher to make inaccurate inferences about the amount. Correlate variables so the use of anonymous data can lead to false regressions. The results show that all research variables are meaningful.

**Table 3: Results of Stationary test of variables**

| test | Statistics | The significance level |
|---|---|---|
| Levin, Lin & Chu t* | -١٧,٠١٢ | ٠,٠٠٠٠ |
| Im, Pesaran and Shin W-stat | -٢٨,٣٢٠ | ٠,٠٠٢٠ |

## 6.4. Check the alignment of variables

If the variance inflation test (VIF) statistic is close to one, it indicates the absence of alignment. As an experimental rule, if the variance inflation statistic is greater than 5, the multiple alignment is high. In this study, according to the results, there is no alignment between the variables.

**Table 4: Results of variability study of variables**

| Variables | The amount of variance |
|---|---|
| INV | 2.002 |
| SENT | 2.224 |
| LIQ | 1.32 |
| DS | 1.204 |
| QT | 1.205 |
| LOSS | 1.528 |
| ROA | 1.725 |
| ROE | 1.815 |
| CFO | 1.177 |

## 6-5- Testing research hypotheses

### 6-5-1-Small company portfolio

**Hypothesis 1:** There is a significant relationship between the emotional tendency of corporate investors with low market value to book value ratio and corporate investment behavior.

ased on the results of estimating the research model, at the probability level of 0.05, the index of emotional characteristics of the investor has a significant effect on the investment behavior of small companies. Also, based on the results obtained at the probability level of 0.05, all control variables of the model, including stock liquidity, cytobin ratio, corporate loss, return on assets, return on equity and free cash flows, have a significant positive relationship with capital behavior. Investment is involved. According to F statistic, we can conclude that the whole regression model is significant. And according to Watson's camera statistic, there is no strong serial correlation between the research variables. The estimated regression coefficient shows that 58% of the changes in the dependent variable Explained by the variables included in the model.

**Table 5: Results of model estimation related to small company portfolio**

| Variables | Coefficient | Std. Error | t-Statistic | Prob |
|---|---|---|---|---|
| *SENT* | 0.314- | ٠,١١٨ | -١,٠٨٩ | ٠,٠٠٠٠ |
| *LIQ* | ١٤,٢١٥ | ٧,٥٢٠ | ٢,١٤٠ | ٠,٠٠٣٣ |
| Tobin′s Q | ١,٢١ | ٠,١٥٥ | ٢,٢١٤ | ٠,٠٢٦٠ |
| *LOSS* | ٤٠,٢٥ | ٢٧,٣٢٠ | ١,٢٤٠ | ٠,٠٠١ |
| *ROA* | ٢,٢٣٥ | ٠,٨٢٧ | ١,٨٥٠ | ٠,٠١٣٣ |
| *CFO* | ٢٤,٢٤٣ | ١٤,٢٣٣ | ٢,١١٠ | ٠,٠٠٠٠ |
| ROE | ٢,٣٦ | ١,١٤٢ | ١,٠١٢ | ٠,٠٣١١ |
| F-statistic =٣,٢٤٢ Prob- ٠,٠٠٠٠ Durbin-Watson stat ١,٦١٦ –R=0.58 | | | | |

### 6-5-2-Portfolio of large companies

**Hypothesis 2:** There is a significant relationship between the emotional tendency of investors in companies with a ratio of market value to high book value and the investment behavior of the company.

Based on the results of the research model, at the level of probability 0.05 between the index of emotional characteristics of the investor on the investment behavior of large companies there is no significant effect. Also, based on the results obtained at the probability level of 0.05, all control variables of the model, including stock liquidity, quota ratio, return on assets, return on equity and free cash flows, have a significant positive relationship with corporate investment behavior and only The relationship between the loss variable and the dependent variable was not confirmed. According to F-statistic, the significance of the whole regression model can be concluded. And according to the value of Watson's camera statistics, there is no strong serial correlation between the research variables. The estimated regression coefficient shows that 55% of the changes in the dependent variable are explained by the variables included in the model.

**Table 6: Results of model estimation related to corporate portfolio**

| Variables | Coefficient | Std. Error | t-Statistic | Prob |
|---|---|---|---|---|
| *SENT* | 0.008 | ٠,٠٠٦ | ٠,٨٠٣ | ٠,١٠٢ |
| *LIQ* | ١٢,٢٠٥ | ٦,٠٢ | ١,٨٠٨ | ٠,٠٠٠٠ |
| Tobin′s Q | ١,٠٠٥ | ٠,٠١٥٠ | ٣,٢٠٣ | ٠,٠٠٠٠ |
| *LOSS* | ٣٢,٢٥ | ٢٢,٠٠٢ | ٢,١٣٠ | ٠,١٤٠ |
| *ROA* | ١,٨٠٩ | ١,٠٢ | ٢,٠٠٢ | ٠,٠٠٤٠ |
| *CFO* | ١٤,٢٠ | ١٠,٥٣٣ | ١,٩٨٠ | ٠,٠١٠٠ |
| ROE | ٣,٢٣٣ | ١,٢٥٠ | ٠,٨٥٠ | ٠,٠٠٠٥٠ |
| F-statistic =١٢,١١٠ Prob- ٠,٠٠٠٠ Durbin-Watson stat١,٨٥٠ –R٠٥٥.= | | | | |

## 6-5-3-Small company portfolio

**Hypothesis 3:** The quality of disclosure affects the investment behavior of companies by affecting the emotional orientation of investors in companies with a ratio of market value to low book value.

Based on the results of the research model, at a probability level of 0.05 in small companies, adequacy of disclosure can affect the investment behavior of the company by affecting the emotional tendencies of investors. Also, based on the results obtained at the probability level of 0.05, all control variables of the model, including stock liquidity, quota ratio, return on assets, return on equity and free cash flows, have a significant positive relationship with corporate investment behavior and only The relationship between the loss variable and the dependent variable was not confirmed. According to F-statistic, the significance of the whole regression model can be concluded.And according to Watson's camera statistics, there is no strong serial correlation between the research variables. The estimated regression coefficient shows that 62% of the changes in the dependent variable are explained by the variables included in the model.

**Table 7: Results of model estimation related to small company portfolio**

| Variables | Coefficient | Std. Error | t-Statistic | Prob |
|---|---|---|---|---|
| *SENT* | 0.812- | ٠,٢١٤ | -١,٠٦٣ | ٠,٠٢٣٣ |
| *SENT ∗ ID* | ٢,١٤ | ٠,٨٦٠ | ١,٦٥٠ | ٠,٠٠٣٠ |
| LIQ | ١,٠٦٣٠ | ٠,٦٥ | ٣,٦٥ | ٠,٠٠٠٠ |
| *LOSS* | ٣٢,٠٥ | ١٦,٦٦ | ٤,٨٧٢ | ٠,٠٦٣ |
| *ROA* | ٣,٠١٣ | ١,٨٨ | ٢,٣٢٠ | ٠,٠٠٠٠ |
| *CFO* | ٢٢,٢٣ | ١٠,٩٥ | ١,٣٠٢ | ٠,٠٠٠٠ |
| ROE | ١,١٥ | ٠,٧٥٠ | ١,٨٧٧ | ٠,٠٠٠٠ |
| F-statistic =٣,٠١٤ Prob- ٠,٠٠٠٠ Durbin-Watson stat١,٨٠٨ – =R٠,٦٢ | | | | |

## 6-5-4-Portfolio of large companies

**Hypothesis 4:** The quality of disclosure affects the investment behavior of companies by affecting the emotional orientation of investors in companies with a ratio of market value to high book value.

Based on the results of the research model estimation, at a probability level of 0.05 in large companies, the assumption of the relationship between adequacy of disclosure and the impact on investors' emotional inclinations on investment behavior was not confirmed. Also, based on the results obtained at the probability level of 0.05, all control variables of the model, including stock liquidity, quota ratio, return on assets, return on equity and free cash flows, have a significant positive relationship with corporate investment behavior and only The relationship between the loss variable and the dependent variable was not confirmed. According to F-statistic, the significance of the whole regression model can be concluded. And according to the value of Watson's camera statistics, there is no strong serial correlation between the research variables. The estimated regression coefficient shows that 48% of the changes in the dependent variable are explained by the variables included in the model.

**Table 8: Results of model estimation related to corporate portfolio**

| Variables | Coefficient | Std. Error | t-Statistic | Prob |
|---|---|---|---|---|
| $SENT$ | 2.202 | ١,٠٥٠ | ٤,٠٠٢ | ٠,٠٨٣ |
| $SENT * ID$ | ٣,٢٥٦ | ٠,٠٠٦ | ٢,٢٦٣ | ٠,١١٣ |
| LIQ | ٢,٠٠٣ | ٠,١٦ | ١,٠١٢ | ٠,٠٠٠٠ |
| $LOSS$ | ٤٤,٢١ | ٢٤,٢٣٥ | ٣,٦٣٣ | ٠,٢٣٣ |
| $ROA$ | ٣,٥٢٣ | ١,٢٥٦ | ١,٠٠٦ | ٠,٠٠١٢ |
| $CFO$ | ١٨,٨٦٢ | ٨,٠٢ | ٤,٢١٠ | ٠,٠٠٠٠ |
| ROE | ٢,٥٥٣ | ٤,١٤ | ٣,٠٠١ | ٠,٠٠٠٠ |
| F-statistic =-٤,٠١١ Prob- ٠,٠٠٠٠ Durbin-Watson stat١,٧٧ –=R٠,٤٨ | | | | |

## 7. Discussion and conclusion

The main purpose of this research is to find information that can lead the market to balance and become more rational and rational in a situation where the capital market has non-fundamental anomalies, with the help of the main elements of the market. According to behavioral financial theory, Sometimes the behavior of investors in the capital market deviates from its rational and fundamental form, and in these circumstances, the assumption that the market is efficient loses its effect on decisions. Emotions and emotional tendencies can significantly affect the behavior of investors. Impressed. Emotional tendencies are directly effective in determining the price of assets and thus market liquidity, which causes changes in the company's investment behavior and the efficiency of different levels of investment that affect the future of the business unit. We divided the desired into two portfolios of large and small companies, then for each portfolio we put the desired data in the relevant model and tested it. The results showed that in small companies, the emotional tendencies of investors can behave Affect the company's investment so that the higher these trends, the more the company's investment behavior towards over-investment. However, in large companies, there was no relationship between investors 'emotional tendencies and investment behavior, which seems to be less effective in large firms' emotional tendencies, which can be deduced. In the emotional conditions of the market, the investment behavior of large companies is more logical, and as a result, in these companies, the efficiency of investment in these conditions is less and more stable changes that can have positive effects for these companies in the long run. We examined the effect of disclosure quality on investors' emotional orientation on the investment behavior of small companies We conclude that the quality of disclosure has a significant relationship with the impact of emotional attitudes on the investment behavior of small companies, but in large companies this relationship was not confirmed. Also, based on the obtained results, all the control variables of the model, including stock liquidity, quotient ratio, return on assets, return on equity and free cash flows, have a significant positive relationship with the investment behavior of large and small companies, and Only the relationship between the loss-making variable and the dependent variable was not confirmed. In this study, we were faced with limited data related to the quality of corporate disclosure. The model variables for the second and third hypotheses up to 1996 were used in the analysis.

## 8. Practical suggestions

Due to the great importance of deciding on buying and selling stocks in the capital market, many researches have been done in this regard, all of which aim to provide useful information for financial decisions. In this study, we examined one of the main variables affecting the company's investment behavior, namely the emotional tendencies of investors, and since we placed the companies under study in different portfolios, the results for each portfolio give us more accurate information. At the end, the following practical suggestions are presented.

1) Although the investment strategy is based on the risk and return expected by investors, but as a general rule in this study, we found that large companies are less affected by emotional tendencies and therefore bear less risk. However, their expected returns can also be lower. It is important to pay attention to this point in investment decisions
2) The index used in this research to measure the emotional tendency of investors is an indicator that considers the fluctuations of stock returns that are considered by investors as the basis of the emotional tendency of investors. It is an index that is less common in financial research. Has been used, which can be given more attention from now on.

3) Considering the importance of the quality of disclosure in controlling the emotional tendencies of investors and considering that according to studies, less attention has been paid to this variable in the capital market information system. Therefore, it is better for market factors to pay more attention to this variable. Because the quality of information disclosure can explain some of the anomalies of the capital market.

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