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RELATIONSHIP BETWEEN MANAGERS OPTIMISM AND INSTITUTIONAL OWNERSHIP IN TEHRAN STOCK EXCHANGE

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Abstract: *This study examines the Relationship between Managers Optimism and Institutional Ownership in Tehran Stock Exchange. Main objective of this study was to investigate the effects of fixed variables, Cash Ratio to investment and Financing Limitation on Managers Optimism. Eviews software is used to test hypotheses and Tehran Stock Exchange is selected population of 2006 to 2014 was examined. The findings suggest that a significant negative correlation between the Managers Optimism, dependence of capital and sensitivity of investment to cash.*

Keywords: Managers Optimism, investment sensitivity, Institutional Ownership, Tehran Stock Exchange, TSE

1. INTRODUCTION

The investment sensitivity to cash flows is one of the most important components of financial literature. Although this is well elaborated in standard financial management, it is a new subject in behavioral financial management. Making investment decisions is amongst the important tasks of a firm's management and it is anticipated adopting efficient and correct investment decisions increase the firm's value. How the management's psychological tendencies affect the firm's investment efficiency is not yet completely clear. A review of the related literature indicates that many investors and managers may have optimistic expectations regarding future outcomes ([6]; [8]; [11]; [15]; [3]). The behavioral approaches of the managers can affect the firm's decisions on investment. Jensen [16] introduces the concept of the agency expense of free cash flow and predicts the managers may invest on projects with negative Net Present Value (NPV), which is beneficial for them. If the information in stock exchange market were net to be distributed, the managers would have ignored investing on the projects with positive NPV due to fear of negative effects on the firm's shares value, which leads in underinvestment [12]. The above mentioned information asymmetry may confine the ability of the firm for financing an investment project ([4]; [9]) or it may empower the managers

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to, by choosing inappropriate investment projects or capital-intensive projects or projects which wastes the firm's resources, inappropriately invest the firm's resources [18].Studies of Malmynder & Tate ([9]; [10]; [11]) indicate that when the mangers optimism affects the institutional ownership decisions, the managers overconfidence lead in complexions and deviations in firm's investment and a firm managed by an optimistic manager may invest more. This matter exposes the firm to higher risks compared to the companies managed by non- optimistic managers.

The experimental studies reveal that most of the people tend to place themselves higher than average on positive personal characteristics such as driving skills, being handsome, sense of humor, being fit, long life expectancy, and the likes. Similarly, the investors also tend to be overoptimistic about markets, economy, and potentials for their own investment optimal outcomes. Most of overoptimistic investors believe that they will not encounter inappropriate investment and such investment will only affect other investors. Such negligence and mistake can affect people's portfolio, since they ignore the potential negative consequences which may be the result of investment decisions.

Daniel Kahneman [19], Noble Prize winner, from Princeton University and Daniel Lovallo from New South Wales Universiy, Australia, describe optimism bias in a more technical manner. They take this bias equal to investors' tendency for adopting an inside view instead of an outside view which is usually more appropriate for financial decisions (1). Inside view is based on the present situation and reflects the personal concerns. However, a neutral outside view evaluates the current situation regarding the background results of the previous related situations. The inside view process versus outside view, distinguishes the investors with biased optimism from investors with intellectual economic decisions, since most predictions unreasonably optimistic are derived from biased feelings about current special situations, and mainly ignore the consequences of the previous related situations. Attending to such consequences can help the investors with more realistic judgments. The cognitive psychology asserts that most of people naturally show optimistic expectations about future. The managers also show a tendency for optimism especially in their decision-making. Firstly, generally when people believe that they have the results of the tasks under control, they become very optimistic [6]. The managers also become very optimistic especially when they have much control over their firm performance [10]. Secondly, people with a high commitment and responsibility are more optimistic about the [7]. The managers also have a high level of commitment for the desired performance of the firm, since their employment, fame and wealth depends on it [12]. Thirdly, when the reference point is mental and absolute, people tend to exaggerate about their personal skills compared to others ([13]; [15]).

2. THEORETICAL FRAMEWORK, LITERATURE REVIEW

The matter of financial behavior is amongst the new subjects introduced in the last two decades by financial scholars and quickly grabbed the attention of the experts, scholars, and students of the field worldwide, as today, these discussions had led in establishment of new field of study in financial studies. The assumption of investors' intellectuality as a simple model of human behavior is one of the main bases of the classic financial knowledge and approximately, affects all the classic financial theories such as portfolio theory, efficient stock exchange, CAPM, agency theory, and the alternate theories derived from them. From behavioral financial knowledge viewpoint, this assumption cannot explain the investors' behavior due to its unreality.

The outbreak of phenomena such as price bubble in stock market, massive fluctuations in shares' price and overreaction (underreacting) of the investors to new information are contrary to the efficient stock exchange market theory. The researchers by testing numerous hypotheses show evidences which are referred as so-called anomalies of stock exchange market including fundamental anomalies, technical anomalies, and calendar anomalies. The fundamental anomaly is anomaly, which is not compatible with intrinsic value of the stock based on the fundamental factors. Technical analysis claims that by studying the historical behavior of the stock, can predict the historical prices of it. Calendar anomaly is indicative of different effects of time on the price and outcome of the stock among which, the best known is "January effect" which dates back to 25 years ago. As we know, all of these anomalies are incompatible with the market efficiency theory. What behavioral financial knowledge seek to pursue as a new field of study, is explaining phenomena such as what was mentioned. These studies try to with the help of psychological knowledge and entering the psychological factors into financial theories and models, elaborate on what is happening in stock exchange and provide a reasonable explanation for investors' and market behaviors.

Heaton [6] studies on investors' decisions indicate that management optimism may lead in adopting a falsified (unreasonable) investment procedure instead of overinvestment or underinvestment, without taking into account the traditional theories of agency and information asymmetry. The optimistic managers may invest the firm's financial resources on the projects with negative NPV, due to overvaluation of the investment projects. In such condition, the firm's internal financial resources start to run out (waste) and the firm faces financial resources confinements, and the optimistic managers tend to draw the conclusion that stock market has underrated them due to overestimation of the desired performance of the firm compared to stock market prospect. Similarly, they will not tend to provide new stock and they will reject the projects with positive NPV. The issue which would outbursts is the managers' optimism may increase the sensitivity between institutional ownership and cash flows in a firm with confinements in financing.

The reason for this is that the optimistic managers invest more compared to non-optimistic managers when the firm's financial resources (cash) are plentiful. Vice versa, they, when the firm's financial resources (cash) are low, they invest less than non-optimistic managers. Even if this experimental prediction is clear and explicit, the experimental evidences for this hypothesis are relatively few, regarding the lack of an index for management optimism. Roll [14] in his famous article on this subject states that management optimism (such as arrogance and rudeness) when a firm is possessed, lead in difficulties for the appropriating firm. Recently, numerous studies have been conducted on the effects of management optimism on corporate decisions. Di angello *et al.* [7] showed that management optimism may increase the firm's dividend payout. Hachbart [6] states that optimistic managers choose a higher level of leverage and follow more the financial hierarchy. Previously, Gervais et al had proven that when optimism forces the managers to try more, employing more optimistic managers is less costly for shareholders compared to managers with lower optimism.Malmendier and Hate [9] have defined an index for the management overconfidence regarding the chairmen's personal portfolio including the stocks and transactions optionality in American companies. They discovered that in American companies, the managers' overconfidence affects the sensitivity of investment ratio to cash flow.A manager who looks for external finances for his investment goals tend to show his own investment projects more important and valuable compared to projects of other managers [9]. These subjects constitute the basis of management optimism effect on corporate decisions in behavioral finance. Kahneman and Riepe [8] in an article titled "the psychological aspects of the investor: beliefs, preferences, and biases the investment consulters should be aware of" categorized the behavioral biases in three categories using "Raiffa" decision theory: (1) biases of judgment, (2) errors of preference, and (3) living with the consequences of decisions.

Biases of judgment include "overconfidence", "optimism", "hindsight", and "overreaction" to random incidences. Errors of preferences include "nonlinear weighting of probabilities", people's tendency for "valuing changes and not states", "the value of gain and loss as a function", "the form and attractiveness of gambling", using "purchase price as a reference point", "narrow framing", the tendencies related to "repeated gambles and risk", "short versus long views", "living with the consequences of decisions leading to feelings", "regret for emission and commission" and "failure in fulfilling the job" and also include the implied concepts on the relationship between regret and risk taking.Daniel Kahneman, Noble Prize winner, from Princeton University and Daniel Lovallo from New South Wales Universiy, Australia, describe optimism bias in a more technical manner. They take this bias equal to investors' tendency for adopting an inside view instead of an outside view which is usually more appropriate for financial decisions (Adam Smith). Inside view is based on the present situation and reflects the personal

concerns. However, a neutral outside view evaluates the current situation regarding the background results of the previous related situations. The inside view process versus outside view, distinguishes the investors with biased optimism from investors with intellectual economic decisions, since most predictions unreasonably optimistic are derived from biased feelings about current special situations, and mainly ignore the consequences of the previous related situations. Attending to such consequences can help the investors with more realistic judgments.

In the Heaton model [6], the optimistic managers overvalue both their own investment projects and their own firm. The overvaluing of the projects leads in optimistic managers invest higher amounts of money using internal resources of the firm compared to non-optimistic managers. In such a condition the internal resources start to run out and the firm faces finance contains. The optimistic managers overestimate the desired performance of the firm compared to the markets prospect and find out the market undervalues their firm as lower than its real value. Therefore, they are not willing to distribute new stocks and consequently invest lesser compared to non-optimistic managers. So, the hypothesis of management optimism effects on the sensitivity of investment ratio to cash flow is as follow:

3. RESEARCH HYPOTHESIS

Hypothesis 1: the investment rate in a firm managed by an optimistic manager is more sensitive to cash flow compared to a firm managed by a non-optimistic manager.

Hypothesis 2: the sensitivity of investment ratio to cash flow and dependence on capital (a firm facing finance constrains) is more in a firm managed by an optimistic manager.

4. RESEARCH VARIABLES AND METHODOLOGY

4.1. Research Model

For testing the above-mentioned hypotheses, the following experimental model is used:

$$I_{it} = \beta_1 + \beta_2 C_{it} + \beta_3 Q_{it-1} + \beta_4 O_i + \beta_5 C_{it} Q_{it-1} + \beta_6 C_{it} O_i + \varepsilon_{it}$$

In which I is the rate of investment, C is the cash flow resulted from the operations, Q is the ratio of market value to book value per a given share, and O is the dummy variable (like the optimism index) which is taken as 1 for a firm with an optimistic manager and 0 for the firm with a non-optimistic manager. For preventing the deviation which may derive from discrepancies in sample companies size, the investment and cash flow values are normalized using the total properties of the firm at the beginning of financial period (financial year). The mentioned

hypothesis predicts that β_6, the coefficient of interaction between cash flow and optimism dummy variable is positive.Since both time series data and sectional data are used in this study, the level of investment may be affected by macroeconomic variables which are excluded in the current study. Therefore, OLS regression aside, for modeling annual effects and obtaining similar results, both fixed effects and random effects should be included in the regression model.

Another important matter in testing the above mentioned hypothesis is that of determining the finance constrains size of the sample companies. In this study, we divide the sample companies into two categories, using the finance constrains literature and several categorization factors: the first category is the companies with enormous finance constrain and the second is the companies with lower finance constrains. Dividend payout is the first factor for categorization which was first proposed by Fazzari et al [16] and was then increasingly used in the related literature ([4]; [5]; [11]). Fazzari et al [16] propose that dividend payout can be used for determining the rate of firm's constrains on finance. If the external financing is too costly for the firm, it should have lower dividend payouts and keep the cash for itself. For a specific firm, the ratio of the years in which the firm hasn't had any payouts to the sample time period is calculated. Then we categorize all the companies based on their size (from minor to major) and take 50% of the companies with lower ratio as the companies with massive finance constrain. The remaining 50% are companies with lower finance constrain.The factor used for categorization is the interest coverage ratio. In the related literature, the amount to which the interest expense are covered by income (the profit before interest and taxes) is taken as an index for the firm's financing power. The companies with higher ratio of interest expense to income (profit before interest and taxes), probably have a more limited access to loans and face more constrains on loans and finance. For each given firm, the ratio of interest repayment, and the Interest expensedivided by thesumof interestexpenseandcash flow are calculated. Then we categorize all the firms from minor to major and take 50% of the companies with lower ratio as the companies with massive finance constrain. The remaining 50% are companies with lower finance constrain.The firm size is the third factor for categorization. The large firms are less likely to be involved in information asymmetry, since the investors tend to acquire more information about the companies analysts analyze more and can be observed for a longer period of time. For each given firm, the mean total property is calculated at the beginning of the financial year. Then the sample firms are categorized based on mean total property, from minor to major and take 50% of the companies with lower ratio as the companies with massive finance constrain. The remaining 50% are companies with lower finance constrain.

The fourth factor for categorization is the level of ownership concentration. For the companies with higher levels of ownership concentration, the goals of investors with internal information is more accommodated with those of external

investors, so such firms would be less involved with the issue of agency [14]. For each given firm, the monthly mean of board of directors members stock percentage is calculated and then the firms are sorted from the lowest ownership percentage to the highest ownership percentage. Fifty percent of the companies with lower ratio are taken as the companies with massive finance constrain. The remaining 50% are companies with lower finance constrain.

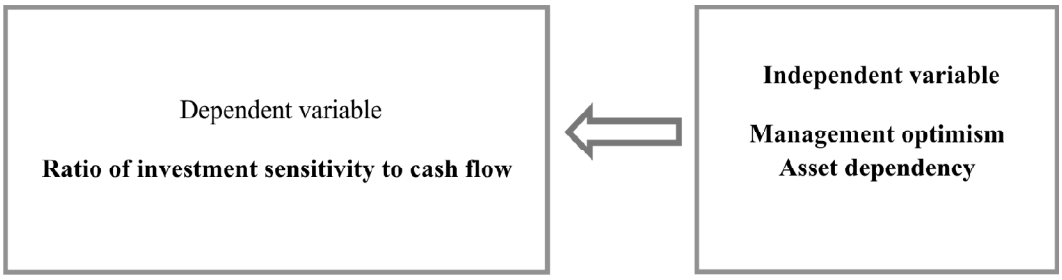

Figure 1: The conceptual model of the study

4.2. Research Variables

The dependent variable in this study is the sensitivity of investment to firms' cash flow as the dependent variable, which is measured as follows:

In numerous studies, the sensitivity of investment to cash is investigated based on regression of investment to cash flow (Q) [7]. The investment model is as follow:

$$INN_{it} = \beta_0 + \beta_1 CFLOW_{it} + \beta_2 Q_{it} + \varepsilon_{it}$$

In which, I is the firm and t is the year.

INN_{it} : is investment and is measured using the ratio of capital expenditure of fixed assets on initial fixed assets

CFLOW: is indicative of cash flow and is measured using net cash flows resulted from operational tasks on initial net assets.

Q: is indicative of growth chance (Q Tobin) and equals the book value of total debts added to shareholders rights market value divided by book value of total assets.

The Independent Variables: In this study, the managers' optimism and the investors' dependency are taken as independent variables and are determined as follows:

The Managers Optimism Index: The mangers forecast about revenues will skew upward only when forecasting error is positive. Forecasting error is calculated as follows in this study:

FE=profit forecast by management before tax- actual profit before tax (3)

Assets Dependency: It is the very firms financing constrain that is measured based on the firms precedence from its entrance into stock exchange market, as the older the firm is than the mean age of all the companies, it will face more financing constrains and vice versa.

5. RESULTS

Descriptive Statistics

In order to get more familiar with the nature of society researched in the study and research variables, it is necessary these data be described prior to analysis and interpretation of the statistical data. The statistical description of the data is also a step toward identifying the dominant pattern and it is a basis for determining the relationships between the variables used in the study. Therefore, before testing the research hypotheses, the research hypotheses are briefly investigated in table 1. This table indicates that which features the research variables have. The reported statistics consist of the indices and core criteria including the mean and dispersion indices with standard deviation, skewness and elongation of the variables used in the study.

The first column shows the mean of collected variables separately, for example mean financial optimism is 5.41 and for the ratio of investment to cash flow 0.69, the asset dpendency is 0.63. The second and third columns describe the maximum and minimum numbers, in which the maximum value for financial optimism variable is 9.16 and the minimum value for the ratio of investment to cash flow variable is -3.21. The difference between maximum and minimum values is indicative of the appropriate range for using the variables. The fourth column shows the standard deviation from the mean which is 1.26 for financial optimism. The fifth and sixth columns show the skewness and elongation of the data from normal bell curve diagram and there are no problems in terms of skewness. All the variables have the minimum standard deviation which is indicative of the proper consistency between the chosen samples. The elongation coefficient also indicates that there is a proper consistency between the data.

Table 1
Describing indices of research variables

elongation	*skewness*	*Standard deviation*	*Min*	*Max*	*mean*	*frequency*	*variable*
2.24	0.35-	1.26	1.69	9.16	5.41	791	FE
2.72	0.85	0.45	3.21-	6.41	0.69	791	IC
1.83	0.85	0.77	1.38-	5.42	0.63	791	Q

Inferential Statistics

In inferential statistics, the researcher calculates the statistic using sample values and then by the help of estimation ant testing the hypothesis and extends the statistics to the society's parameters. For analysis and interpretation of the data and testing the research hypotheses, the inferential statistics is used. Meanwhile, by calculating the logarithm of the data, they showed normal distribution. In this section the inferential statistics is used for data analysis, and panel method is utilized.

Table 2
White test of variance inconsistency

Sig	*Statistics value*	*explanation*
0.2625	24.936	F-statistic
0.2812	133.854	Obs R-squared

Table 3
Miller F-test

Miller F statistics	*Sig*
3.82	0.202

Table 4
Hausman test

Hausman statistics	*Sig*
25.92	0.03

Regarding the probability level of Hausman statistics, the null hypothesis on using the fixed effects model is confirmed. So, for estimating the coefficients, the fixed effects model should be used. After making sure there are no fake regressions, we assess the model.

1. The First Hypothesis Test Results: The first hypothesis testing results indicates that there a negative relationship between the managers optimism and investors' sensitivity to cash (-0.17). The value of F statistics and its significance number are indicative of the estimated regression model significance. Also, Durbin-Watson statistics is indicative of lack of autocorrelation. The hypothesis test enjoys a proper significance and 99% validity, so the first hypothesis is confirmed and the H0 is rejected.

2. Second hypothesis test results: For the second hypothesis, there was a significant and negative relationship between managers' optimism and assets dependency (-0.22). The results are significant at 5% error level. Likewise, the second hypothesis

Table 5
First hypothesis testing

Investment sensitivity to cash flow	*variable*
0.173-	Managers optimism
0.00	Sig
1.56	Fixed value
0.52	R-squared
18 0.000	statisticsF
1.84	Durbin-Watson

is confirmed (H1 is confirmed). After estimating the coefficients, the Durbin-Watson statistics is calculated as 2.11 which means there are no consecutive correlation in disturbing element. Consequently, the issue of serial autocorrelation is not observed and we can accept the in dependency of the remaining. The F statistics also is indicative of the significance of the estimated regression model.

Table 6
Second hypothesis testing

Asset dependency	*Variable*
0.225	Managers optimism
0.00	Sig
0.199	Fixed value
0.56	R-squared
186 0.000	statisticsF
2.11	Durbin-Watson

6. CONCLUSION

This study aimed at investigating the relationship between managers' optimism and investment sensitivity to cash flow and assets dependency in manufacturing firms in Tehran Stock Exchange. It was conducted through fitting the regression models with consolidated data in a 7-year period from 2007 to 2013. The results showed that there is a significant and negative relationship between the independent variable managers' optimism and dependent variable investors' sensitivity to cash flows. The results also indicate that there is a significant positive relationship between managers' optimism and assets dependency in Tehran Stock Exchange. It is revealed that by 1% increase in independent variable, the ratio of investment sensitivity to cash flow undergoes a -0.17 decrease. Also, by 1% increase in independent variable, the assets dependency is increased up to 0.22%.

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