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MANAGERIAL OVERCONFIDENCE AND FIRMVALUE

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ABSTRACT
In this paper we examine the impact of managerial overconfidence on firm value. The firm value as a dependent variable is measured by using the Tobin's Q. the managerial overconfidence variable also as independent variables is measured by examining the studies based on two measure methods and their impact on the performance of 38 companies listed in Tehran Stock Exchange during the years 1388 to 1392and by using multivariate regression analysis. The results of the study showed that managerial overconfidence based on both methods has an impact on the firm's value.

Keywords: Managerial Overconfidence, Firm Value, Tobin's Q, Financial Leverage, Age Firm and Size Firm

INTRODUCTION
Management is one of the most important factors of enterprise and as the hidden and non-physical factors of production plays a direct and important role in the efficient use of resources (Daneshvar *et al.,* 1388). Life and survival, organizational goals and increase in efficiency of the organization and the like of these are all major responsibilities of the management system (Malekian *et al.,* 1392). In a word, the management has a key role in the organization.

Managers are senior people who have a lot of authority indecision making. Personal desires, tastes and feelings of managers can influence the selection policies and procedures of the organization. One of the most important factors that influence the behavior of managers is the problem of overconfidence or too much trust. Over confidence is a personal property that can be defined as skewed behavior and positive beliefs in relation to any aspect of an outcome under uncertainty terms. . In this case, the estimation of mean will be exaggerated (Scala, 2008). Over confidence causes to one overestimates its knowledge and skills and underestimates the risks and, one feels to control the issues and events while in fact it is not possible (Falah *et al.,* 1389). Overconfident managers are more likely to overestimate future capital returns, hence over confident managers are more likely to overestimate the probability and magnitude of future cash flow positive shocks of the running projects and they underestimate the reverse and negative shocks of the cash flow (Ahmed and Duellman, 2012). Overconfident managers allocate the longer term for the continuation of their company and they are optimistic about other companies and the costs of investment, therefore overconfident managers are more likely to underestimate the costs .these managerial overconfidence is applied in anticipating the costs and sales (Pirmoradi *et al.,* 1392). In such a case, the decisions of the managers which effected by their motions and incentives can have an impact on life sustain, success and failure of company (Pirmoradi, 1393) and in a word, firm performance and accordingly firm value therefore this study seeks to answer the question whether managerial overconfidence has a impact on firm value? And if it is applicable, is the impact positive or negative?

Theoretical Fundamentals and Background
Managerial overconfidence or too much trust is one of the most important concepts in modern behavioral finance that has a special place in psychology and financial theories. In recent years by in trance of psychology into accounting and finance field, one of the most important factors identified in this area, is managerial overconfidence. Managers in organizations act as a leader, reformer and leading different tasks, control, supervision and decision making. Research shows that the managers always have not rational decisions and they have benefited from their biased attitudes in this matter (Pirmorady, 1393).

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Managerial Overconfidence has Different Types that are

1.miscalibration[3]: The most common type of overconfidence in the financial literature is overconfidence in the prediction that is often people are more likely to overestimate the accurate of own knowledge and they underestimate the risks and the variance of the random variables and have a very narrow distance of confidence in their predictions (Lictenstein *et al.,* 1982). For example, when estimating the value of a share they consider the much lower deviance to the range of expected returns.

2. Unrealistically positive self-evaluation: In this type of over-confidence, people estimate skills more than what is. Psychology researches have been done shows that people generally tend to have a positive view of themselves and their skills. These people when they are compared with others know the level of their skills and abilities above the average level of ability and skill than other members.

3. Illusion of control: this makes people feel to control issues, or at least can impact it while in fact this is not possible and they overestimate the likelihood of their success (Fallah *et al.,* 1389).

Decisions based on personal desires and based on away from the fact of overconfident managers , always as an important factor threatens the future of the company. overconfident managers make decisions deal with Unit supports based on the desires of subjective and away from reality and they inter the own tastes, feelings, and beliefs into organizational decisions and dealing with the reality has inefficient acts due to lack of preparation for dealing with the situation.

Determining the value of the firm is one of the most important factors in investment process. The value of the company is determined according to the value of its shares. The investor determines own priority according to the firm value. Among the factors affecting the company's stock value are financial decisions (capital structure and dividend policy (Sinai *et al.,* 1390). When companies create value for their stakeholders the firm value will be created.

Management plays an important role in creating value for the company. This study predicts that the firm value is a function of behavior and performance management. Overconfident managers by using the overestimating their own skills and ability, overestimate the firm value than before. Hence overconfident managers are more likely to overestimate the increase of firm value. Also, overconfident managers using the mechanism of overestimating the ability of their skills without comparison with others, emphasize on more accurate assessment of the increase in value of the company. In sum, both the behavioral mechanisms make over confident managers are more likely to overestimate the increase in firm value.

Prseley and Abbott (2013), examined the relationship between corporate managers and exposure revision of financial statements their research includes the 75 firms showed that there is a significant and positive relationship between the managerial overconfidence and exposure revision of financial statements.

Ahmed and Duellman (2012) studied the relationship between overconfidence and accounting conservatism. Results of the study showed that there is a negative relationship between over confidence and accounting conservatism.

Hovang *et al.,* (2011) studied the impact of over confidence on the investment-cash flow sensitivity and impact of the agency costs on mentioned relationship. The results of these studies showed that managerial overconfidence increases the investment-cash flow sensitivity, and in firms with higher agency costs these impact is higher. Also they showed that inefficient due to impact of overconfidence is decreased by decreasing the agency costs.

Liu and Toffler (2007) studied the impact of managerial overconfidence on the performance of the company. With the hypothesis that the managerial overconfidence has a negative impact on corporate performance, they studied the 2300 firms during the years 1993 to 2005. The results confirmed their hypothesis.

Pirmoradi *et al.,* (1392) investigate the impact of managerial overconfidence on the quality of accruals. They studied the 62 companies listed in Tehran Stock Exchange during the years 1385 to 1391 and they use three criteria's of managerial overconfidence and they measured this relationship by using the three hypotheses. The results of their study showed that the managerial overconfidence has no significant effect on the quality of accruals. Malakian *et al.,* (1392) in a study entitled "The relationship between managerial overconfidence and conservatism of listed companies in Tehran Stock Exchange" they

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examine this relationship by using the measuring the 86firms listed in Tehran Stock Exchange. The results of the study showed a significant relationship with the Iranian companies.

Kazemi (1391) studied the impact of the agency costs and cash reserves on relationship between managerial overconfidence and investment-cash flow sensitivity. Their criterion for measure the overconfidence is measured by difference between the predicted profit and actual profit .according to results, managerial overconfidence increases the investment-cash flow sensitivity. Also higher cash do not increases the impact of managerial overconfidence on investment-cash flow sensitivity. Also the results showed that the positive impact of managerial overconfidence on investment-cash flow sensitivity is higher in firms with higher agency costs.

MATERIALS AND METHODS

Research Methods

This research is an ex-post research and from the purpose perspective is application research and from the data gathering perspective, research is descriptive . In this study, two methods of gathering information, the library and field methods are used. The library method is used to study the literature and history of research and the data was gathered by using the Rahavardnov in 3, and the official website of the Stock Exchange. The EXCEL software is used to classify and analysis of in formations collected. The regression model and SPSS software is used to prove or disprove the hypotheses.

Sample and Population

The sample of this study includes the companies listed in Tehran Stock Exchange, which has all the following conditions:

- By the end of March 1387 are listed on the stock exchange and the financial year is ended 29 March.
- Companies have not changed the own financial year during the financial given periods.
- During the study period, the Companies are traded actively and its shares are traded.
- Financial information required to do the research on the financial period 1388-1392 are fully provided.
- The Companies are not Investment company or intermediary, bank and Insurance company .

After identifying the samples, the sample size was calculated using cochran formula that is equal to the 38 firms. Then, the simple random sampling is used to select the samples

Research Hypotheses

The purpose of this study is to evaluate the impact of managerial over confidence on firm value. Managerial overconfidence is measured based on two methods, (over confidence based on EPS and overconfidence based on capital expenditures). The hypotheses of the study is as follows:

The First hypothesis: over confidence based on EPS has a impact on firm value.

The second hypothesis: overconfidence based on capital expenditures has a impact on firm value.

Variables

Independent Variables

Overconfidence based on the EPS (COC1): overconfidence based on this method is calculated by using the calculating the difference between the predicted earnings per share and actual profit. If the predicted benefits is higher of actual benefit, it is 1 that in this case the manager is overconfident and it is equal to 0 otherwise that in this case there is no managerial overconfidence.

This criterion is used for measuring managerial over confidence in other studies such as Hovang *et al.,* (2011) and Pirmoradi *et al.,* (1392).

Overconfidence based on capital expenditures (COC2): overconfidence based on this method is a dummy variable that obtained by calculating the median of capital expenditures. If capital expenditures divided by total assets in a given year are greater than the median level of capital expenditures to total assets it is equal to 1, otherwise it is equal to zero.

This criteria is used for studies of malmendier and Tate (2005) and Pirmorady *et al.,* (1392). Capital expenses is incurred to Purchase of new and fixed assets or to repair and add value to existing fixed assets. The Purchase of land, buildings, equipment and machinery are examples of capital costs. Capital expenditures is calculated by the formula:

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Capital expenditures

$$= \frac{\big((t)\text{Purchase of fixed asset} - (t)\text{sale of fixed asset}\big) - \big((t-1)\text{Purchase of asset} - (t-1)\text{sale of fixed asset}\big)}{(t-1)\text{net fixed asset}}$$

Control Variables
In this study, by investigating the research background, the financial leverage and firm size variables are identified as effective variables on firm value and were selected as control variables.
Financial leverage (LEVERAGE): financial leverage shows the use of debt to finance assets. Financial leverage is calculated by the sum of company's debts divided by the sum of its total assets (George *et al.,* 2008).
Firm size (SIZE): firm size can indicate the ability of management and quality of accounting schemes. The natural logarithm of the book value of assets is used to measure the firm size (George *et al.,* 2008).
Dependent Variable
firm value (PER): In this study, based on research of dulcimer Kig and Santor (2008), the Q index is used to measure the firm value , which is calculated by sum of market value of equity and book value of debts divided by book value of total assets.

$$Q = \frac{Mve + Bvd}{Bva}$$

RESULTS AND DISCUSSION
Findings

Table 1: Shows the descriptive statistics for the variables

Maximum	Minimum	Standard deviation	Median	Mean	Number	Statistical Indicators Variable
7.744	.617	.3017	1.215	1.450	228	Firm value
1	0	.4925	1	0.5921	228	overconfidence based on the method 1(E PS)
1	0	.4940	0	0.4167	228	overconfidence based on method 2(capital expenditures)
4.59	.55	.5599	1.508	1.6233	228	Financial Leverage
7.28	4.84	.50322	5.548	5.8867	228	Firm size

Source: Findings

Checking the assuming normal distribution of variables

Table 2: Testing the assumption of normal distribution of variables

Significant level Sig	Kolmogorov -Smirnov Z	Statistical Indicators Variable
.066	1.26	Firm value
0.52	0.54	overconfidence based on method 1
0.20	1.01	overconfidence based on method 2
0.21	0.76	Financial Leverage
0.23	1.03	Firm size

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The Test Results of First Hypothesis

Table 3: Results of multivariate regression coefficient for predicting the value of the company by using the components of overconfidence based on method

Significance level (P)	Adjusted coefficient of determination Adjusted R^2	The coefficient of determination (estimated) R^2	Multiple correlation R	Multiple correlation R
0.0001	0.068	0.077	.277	overconfidence based on method 1and control variables with firm value

As table 3 shows, by using the multivariate regression, there is linear relationship between the independent variables and firm value of the 0/277/0 and the independent variables can predict the 7/ 70 percent of changes of the independent variables of firm value. Since the significance level obtained (0/0001) is smaller than the significance level of criterion (0/01), then there is significant linear relationship between the variables with 99 percent confidence.

Table 4: Results of first hypothesis testing

$$VAL_{it} = \beta_0 + \beta_1 COC1_{it} + \beta_2 LEVERAGE_{it} + \beta_3 SIZE_{it} + \varepsilon_{it}$$

VIF	p-value	Statistics t	Variable coefficients	Explanatory variable
	.089	1.70	0.305	The remaining amount ()
1.008	0.0001	5.19-	0.148-	overconfidence based on the method 1
1.008	.110	1.60	0.04	Financial Leverage
1.032	0.032	2.15	0.061	firm Size
9.34				Statistics F
0.0001				p-value
1.81				Durbin-Watson

Source: Findings

According to the findings obtained in the VIF index and Durbin-Watson it can be concluded that there are assumptions of non-linear correlations between the independent variables and there is no autocorrelation. As can be seen in Table 4, the t-statistic in overconfidence variables based on method 1 and firm sizes is significant at 0/05 error level. So in 0/05 error level of hypothesis the study based on existence of significant relationship between overconfidence based on the EPS and firm value was confirmed.

F statistics and p-value are equal to 9/34 and0/0 0001respectively that states this statistics is significant at the level of 0/0rror level. Adjusted R^2 coefficient indicates that the explanatory variables can explain the 7/70% of the total variation of firm value. The financial leverage variable is not significant and it has no impact on firm value.

The Test Results of Second Hypothesis

Table 5: Results of multivariate regression coefficient for predicting the value of the company over the components of overconfidence based on method 2

Significance level (P)	Adjusted coefficient of determination Adjusted R^2	The coefficient of determination (estimated) R^2	Multiple correlation R	Statistical Indicators Variable
0.0001	.301	.307	.554	overconfidence based on method 2 and control variables with firm value

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As Table 5 shows, by using the multivariate regression, there is a linear relationship between the independent variables with the value of the 0/554 and dependent variables can predict the 30/7 % variations related to the value of the company. Since the significance level obtained (0/0001) is smaller than the significance level of criterion (0/01), then there is significant linear relationship between the variables with 99 percent confidence.

Table 6: Results of the test the second hypothesis

$$VAL_{it} = \beta_0 + \beta_1 COC2_{it} + \beta_2 LEVERAGE_{it} + \beta_3 SIZE_{it} + \varepsilon_{it}$$

VIF	p-value	Statistics t	Variable coefficients	Explanatory variable
	.384	0.87-	0.134-	The remaining amount ()
1.05	0.0001	13.63-	0.342-	overconfidence based method 2
1.02	0.0001	4.02	.088	Financial Leverage
1.06	0.0001	5.27	.131	firm Size
49.95				Statistics F
0.0001				p-value
1.77				Durbin-Watson

Source: Findings

According to the findings obtained in the VIF index and Durbin-Watson it can be concluded that there are assumptions of non-linear correlations between the independent variables and there is no autocorrelation . As can be seen in Table 6, the t-statistics in overconfidence variables based on method 2 and firm size is significant at 0/01 error level. So in 0/01 error level of hypothesis2 that there is a significant relationship between overconfidence based on capital expenditure and the firm value was confirmed. F statistics and p-value are equal to 9/3449/95 and 0/0 0001respectively that states this statistics is significant at the level of 0/01error. Adjusted R ^{2} coefficient indicates that the explanatory variables can explain the 7/70% of the total variation of firm value.

Conclusion

This study examines the impact of managerial over confidence as a negative factor affecting the value of the company. The present study with respect to the theoretical fundamentals of accounting literature, tests this relationship in environmental conditions of Iran. Managerial overconfidence as independent variable of research is measured based on two methods of profit prediction and capital expenditure and by examining researches conducted in this area.

The dependent variable that is the value of the company, is evaluated by using the Tobin's Q. by examining the studies were carried out on the factors affecting the firm value ,the financial leverage and firm size variables were selected as control variables. Hypothesis of this study were measured by using the data of the 38 companies listed in the Tehran Stock Exchange during the period 1388-1392. The results of the hypotheses test (Hypotheses I and II) show that managerial overconfidence has a negative impact on firm value .

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