



Institutional Ownership, CEO Characteristics and the Probability of Fraud Occurrence in Firms

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ABSTRACT

A lot of studies focus on market reaction to the disclosure of fraud and managers' commitment facing financial distortions. However, it is not clear that how firms' fraud influences decision making and policies of the firms. Most of investors and law legislators believe that some features of corporate governance help protect shareholders' interests and reduce any conflict of interest between the shareholders and the management. This can reduce the likelihood of fraud at the firms. The aim of this study is to investigate the relationship between institutional ownership, CEO characteristics and the probability of fraudulent financial reporting of listed firms on the Stock Exchange in Tehran. The studied sample consists of 100 firms listed in Tehran Stock Exchange during the five-year period 2010 to 2014. To verify the hypotheses, multiple regression method is used. The results of testing the hypotheses show that there is a significant relationship between institutional ownership, and CEO influence and the possibility of fraudulent financial reporting in firms. However, there is no significant relationship between duality of CEO task and the risk of fraudulent financial reporting in firms.

Keywords: Fraud, Institutional Ownership, CEO Influence, CEO Duality

INTRODUCTION

Institutional investment involves the number of ordinary shares available to investment institutions, banks, insurers and other institutions and firms that are professionally engaged in investment activities. Some researchers have categorized the institutional shareholders in two groups. The first group is the investors who focus on short term profits and the second group involves those professional investors whose comparative advantage in data collection and analysis is so that they consider more information about future earnings not reflected in current year earnings. Institutional investors, in comparison with other investors, have a comparative advantage regard to the information collection and process¹. These investors collect and investigate the information on firms and their future earnings. Theoretical foundations and empirical evidence suggest that institutional ownership will have a positive effect on the value and performance of firms. In short, it can be stated that institutional investors are incentives to improve performance. Moreover, they have the ability to punish the managers who do not move on to their interests².

One of the most important internal mechanisms of corporate governance is the consideration of CEO and CEO characteristics (including CEO duality, and the influence of CEO) as the governing body of the firm that has the role of protecting the ownership interests of

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shareholders. The situation in which the CEO is also the chairman of the Board of Directors, is referred to CEO-duality and in this case the CEO has potentially more authority. Dual- structure also allows CEO to effectively control the information available to other members of the Board of Directors and thus he/she may prevent effective monitoring³. When the chairman of the Board of Directors has also the CEO position, it is very difficult for the Board of Directors to effectively play its critical task. Therefore, in order to have effective supervisory role of the Board of Directors, separation of chairman of the board and CEO positions is important³. Duality of CEO potentially increases the risk of being the final decision maker of the CEO regarding the financial reporting and as a result the cost of monitoring the behavior of management may increase⁴. The influence of CEO combines the decision management and decision control that can gradually destroy the ability of management to impose control⁵. Most of those who recommend governance practices, insist on independence of the chairman of the Board of Directors. Corporate governance lawmakers have come to the conclusion that the CEO as a source of executive power has influence on the Board of Directors. The role of chairman of the Board of Directors is to monitor the CEO³.

Chairman of the Board of Directors has the power to control the agenda and steer the Board meetings. If the interests of the CEO are different from the interests of shareholders, then, the influence of the CEO is problematic. Yermack Showed that firms with (non-executive) independent Chairman of the Board of Directors, in comparison with firms that are under the influence of CEO, have better performance⁶.

Fraud in the financial accounting and reporting has grown considerably in recent years. With the appearance of financial crisis in companies like Enron, Global Crossing and WorldCom, the issue of fraud in financial entered the political arena as well. Today, the legislative bodies, accounting profession and management have shown special interest to the causes of fraud and ways to prevent the occurrence of fraudulent financial reporting. Falsification of financial statements involves the manipulation of their constituent elements through overstating assets, sales and profits or understating the liabilities, expenses and loss. When the financial statements contain a significant distortion so that the components of the financial statement do not indicate the reality, it is said that fraud has taken place⁷.

Therefore, since it is not clear that how firms' fraud influences decision making and policies of the firms, this study investigates the impacts of institutional ownership, and CEO characteristics on the probability of fraudulent financial reporting of listed firms on the Stock Exchange in Tehran. As a result, according to the purpose of this study, we seek to answer the question whether there is a significant relationship between institutional ownership, CEO characteristics and the probability of fraudulent financial reporting of listed firms on the Stock Exchange in Tehran.

LITERATURE REVIEW

There is no universally accepted definition of financial fraud. Wang et al. have defined fraud as: Targeted efforts for obtaining illicit financial profits, contrary to the laws, rules, or politics. In recent years, various types of financial fraud, such as credit card fraud, corporate fraud, and money laundering, have caused great concern and have attracted the attentions. Negay et al in an overall classification have divided the types of financial fraud into four categories; bank fraud, insurance fraud, securities and commodities fraud, and other financial fraud. In practice, two types of fraud can be distinguished in firm. The first is the misuse of assets, for example in the form of theft, embezzlement, falsifying expense accounts, personal use of corporate assets, etc., and the second is fraudulent financial reporting. Fraudulent financial reporting involves intentional distortion of financial statements.

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reporting. Fraudulent financial reporting involves intentional distortion of financial statements. Standards Statement No. 82, followed by Standard No. 99 of Chartered Accountants Association of America has made fraud detection mandatory for audit firms. The presence of these standards, and the consequences of committing fraud increase the need for effective fraud detection⁸.

Fraud detection with conventional methods of audit is very difficult. The reason for that is that first, there is little knowledge about the characteristics of management fraud. Second, a part of the auditors lack the experience required for discovering falsifications, in particular cases of fraud. Finally, some managers deliberately try to deceive auditors⁹. For such managers who are aware of the limitations of an audit, the conventional methods of audit may not be enough. These restrictions are associated with the need for additional analytical methods for effective detection of fraud.

There can be different incentives for fraudulent financial reporting. In the research carried out by¹⁰, bonuses based on accounting earnings are considered as the incentives;¹¹, mention maintaining or increasing the stock market price and minimizing tax liabilities. Fama and Jensen (1983), believe that reaching the predicted figures is the incentives for fraudulent financial reporting and Kotsiantis et al (2006), noted financing with the lowest cost^{12,13}. Audit Committee can be considered as one of the main factors in the prevention and detection of fraud in financial reporting.

Frank et al (2015) examined the characteristics of the CEO and the firm's social responsibility and value. This study, using traditional prediction theory of agency cost, investigated that "Do the firms with powerful executive managers desire to invest (more) in activities with high social responsibility?". For this purpose, three measures of CEO compensation, CEO tenure and CEO duality are used to measure the strength of the CEO. The results show that the power of the CEO of the firm has a negative correlation (relationship) with the level of activity of social responsibility of the firm. The results also suggest that the firm's activities in order to increase the social responsibility will increase the firm value¹⁴.

Razali and Arshad (2014) examined the relationship between corporate governance structure and the possibility of fraudulent financial reporting. Their research results indicate that effective corporate governance reduces the likelihood of fraudulent reporting. The results also show that effective corporate governance structure has a prominent role in enhancing the credibility of financial reporting¹⁵.

Safar-Zadeh (2010) investigated the role of accounting data in creating a template for detecting factors associated with fraudulent financial reporting. His classification of fraudulent firms is on the basis of 1) the Firm's including in Securities and Exchange organization for reasons related to the falsification of financial data and 2) doing insider trading and unissued opinions by the court regard to the misstatements in financial reporting. After the analysis, ten financial ratios are introduced as potential predictors of fraudulent financial reporting. The results of the study demonstrated 82.9 percent classification accuracy. Since the Stock Exchange Organization does not issue any list of firms subject to fraud and non-fraud and also until sentencing the court judgement, considering the firms as cheaters and non-cheaters is not logical¹⁶.

Research Hypotheses

As was mentioned, this study aims to investigate the relationship between institutional ownership, CEO characteristics and the probability of fraudulent financial reporting of listed firms on the Stock Exchange in Tehran. Therefore, with regard to the theoretical foundations, the following hypotheses are proposed:

First Hypothesis: There is a significant relationship between institutional ownership and the likelihood of fraud.

Second Hypothesis: There is a significant relationship between the CEO influence and the likelihood of fraud.

Third Hypothesis: There is a significant relationship between the duality of CEO and the likelihood of fraud.

METHODOLOGY

Methodology of the present study is correlational in terms of nature and content. Using secondary data extracted from the financial statements of listed firms on Tehran Stock Exchange, the correlation relationship is analyzed. This study is conducted within the framework of deductive - inductive reasoning. The present research is also among library and causal -analytical studies, and based on analysis of panel data (panel data).

Statistical Population and Sample and Study Period

The research population consists of all firms listed on the Tehran Stock Exchange since the beginning of 2010 until the end of 2014, comprising 567 firms. A total of 100 firms are selected as the research sample, whose data is collected from the Stock Exchange of Tehran and other databases related to official organizations of Iran.

Data Analysis Method

After gathering research data, first, the initial data from firms' financial statements are entered into Excel software and through this software the necessary data are provided to insert in the model. The collected data of the research are prepared using accounting models and equations in the form of columns of data for statistical analysis. Then the data are encrypted and through statistical methods and excluding outliers, data normalization is carried out.

Eviews 6 software is used to analyze the research data. Using this software, central tendency (median and mean) and dispersion indices (standard deviation, skewness and kurtosis) are applied. Then, after a brief analysis of the data, using unit root test the variables reliability is tested. White test is applied to determine Heteroskedactisity, Breusch – Godfrey test is used for autocorrelation problem of residuals. Then the research model is estimated and the results will be analyzed.

Research Model and Variables

To test the research hypotheses regression model is used:

$$\begin{aligned} \text{fraudulent financial reporting}_{i,t} \\ = \alpha_0 + \beta_1 \text{OWNCON}_{i,t} + \beta_2 \text{INSOWN}_{i,t} + \beta_3 \text{CEOI}_{i,t} + \beta_4 \text{DUAL}_{i,t} + \beta_5 \text{BRDSZE}_{i,t} \\ + \beta_6 \text{BRDIND}_{i,t} + \beta_7 \text{DEBTRL}_{i,t} + \beta_8 \text{TENURE}_{i,t} + \beta_9 \text{SIZE}_{i,t} + \beta_{10} \text{LEV}_{i,t} + \varepsilon_{i,t} \end{aligned}$$

The Probability of Fraud:

In this research, the same as the study carried out by Razaly and Arshad (2014), Altman's modified model (1983) will be used to assess the possibility of fraudulent financial reporting, as follows^{15,17}:

$$Z - \text{score} = 0/717X_1 + 0/847X_2 + 3/107X_3 + 0/42 X_4 + 0/998X_5$$

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Ratio of working capital to total assets (x_1)

Ratio of accumulated earnings to total assets (x_2)

Ratio of earnings before interest and taxes to total assets (x_3)

Ratio of equity book value to debt book value (x_4)

Ratio of sales to total assets (x_5)

If $Z' < 1/2$, bankruptcy is complete, if $1/2 < Z' < 2/9$, it is between bankruptcy and non-bankruptcy and if $Z' > 2/9$, it means that business unit is in complete safety. Therefore, if $Z' < 1/2$ or $Z' < 2/9 > 1/2$, we consider the likelihood and possibility of fraud as one and if $Z' > 2/9$, we assume the risk of fraud as zero.

Institutional Ownership: it is the sum of firm's stock percentage that is owned by banks, insurances, financial institutions, holding firms, and state-owned organizations, institutions and firms. **CEO Influence:** If the chairman of the Board of Directors is a responsible member, it is equal to one, and otherwise it is equal to zero. **CEO-Duality:** if the CEO is the chairman of the Board of Directors, it is equal to one, and otherwise it is equal to zero. **Firm Size:** It is measured by natural logarithm of book value of equity. **Financial Leverage:** It is the dividing of total debt by total assets.

RESULTS

Descriptive Statistics

Table 1. Descriptive Statistics of Research Variables

Variable	Mean	Median	Standard Deviation	Skewness	Kurtosis	Min	Max
Likelihood of Fraud	2.20	1.97	1.28	10.20	2.24	0.23	12.00
Institutional Ownership	49.10	5192	32.13	-1.44	-0.11	0	99.30
CEO Influence	0.07	0	0.26	9.47	3.38	0	1
CEO Duality	0.16	0	0.36	1.62	1.90	0	1

The review on the descriptive results of research variables shows that the mean of the dependent variable of the likelihood of fraud in firms is equal to 2.2 that due to the Altman model, the studied firms are between bankruptcy and non-bankruptcy.

Research Hypotheses Testing

In this section, in order to test the hypotheses (impact of variables), the t-statistic and its significance level are used. If the absolute value of the calculated t is greater than the t of the table, the null hypothesis is rejected and the coefficient is significant; otherwise the null hypothesis cannot be rejected. In addition, the significance level shows the least likelihood to confirm the null hypothesis based upon the desired coefficient being zero. This indicates that if the probability is greater than 5%, the null hypothesis cannot be rejected and otherwise, the desired coefficient is significant.

First Hypothesis: There is a significant relationship between institutional ownership and the likelihood of fraud.

The study on the first hypothesis shows that the significance level of the t-statistic of institutional ownership ratio variable (-3.242) indicates that the variable has a negative

significant effect on the likelihood of fraud, at 5% error level, hence H_0 hypothesis is rejected at confidence level higher than 95%. This means that due to the negative regression coefficient, there is a negative significant (inverse) relationship between ratio of institutional ownership and the likelihood of fraud. It can be expressed that the higher (lower) the ratio of institutional ownership, the more the likelihood of fraud in the firms will decrease (increase).

Table 2. Results of Research First Hypothesis

Variable	Regression Coefficient	Standard Error	t Statistic	Significance Level
Intercept	0.657	0.481	1.367	0.172
Institutional Ownership	-0.316	0.097	-3.243	0.001
Firm Size	0.148	0.020	7.440	0.000
Leverage	-1.008	0.093	-10.823	0.000
Determination Coefficient	0.920	F Statistic	41.607)0.000(
Adjusted Determination Coefficient	0.897	Durbin Watson	2.019	

Second Hypothesis: There is a significant relationship between the CEO influence and the likelihood of fraud.

The study on the second hypothesis shows that the significance level of the t-statistic of CEO influence variable (-2.300) indicates that the variable has a negative significant effect on the likelihood of fraud, at 5% error level, hence H_0 hypothesis is rejected at confidence level higher than 95%. This means that due to the negative regression coefficient, there is a negative significant (inverse) relationship between CEO influence and the likelihood of fraud. It can be expressed that the higher (lower) the influence of CEO, the more the likelihood of fraud in the firms will decrease (increase).

Table 3. Results of Research Second Hypothesis

Variable	Regression Coefficient	Standard Error	t Statistic	Significance Level
Intercept	0.657	0.481	1.367	0.172
CEO Influence	-0.065	0.028	-2.300	0.022
Firm Size	0.148	0.020	7.440	0.000
Leverage	-1.008	0.093	-10.823	0.000
Determination Coefficient	0.920	F Statistic	41.607(0.000)	
Adjusted Determination Coefficient	0.897	Durbin Watson Statistics	2.019	

Third Hypothesis: There is a significant relationship between the duality of CEO and the likelihood of fraud.

The study on the third hypothesis shows that the significance level of the t-statistic of duality of CEO variable (1.332) is greater than 5% at confidence level higher than 95%. Due to the obtained results, the hypothesis H_0 is not rejected at confidence level higher than 95%. This means that there is no significant correlation between CEO duality and the likelihood of fraud.

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Table 4. Results of Research Third Hypothesis

Variable	Regression Coefficient	Standard Error	t Statistic	Significance Level
Intercept	0.657	0.481	1.367	0.172
CEO Duality	0.141	0.106	1.332	0.184
Firm Size	0.148	0.020	7.440	0.000
Leverage	-1.008	0.093	-10.823	0.000
Determination Coefficient	0.920	F Statistic		41.607(0.000)
Adjusted Determination Coefficient	0.987	Durbin Watson Statistics		2.019

CONCLUSION

This study investigates the relationship between institutional ownership, CEO characteristics and the probability of fraudulent financial reporting of listed firms on the Stock Exchange in Tehran. The first and second hypotheses of the study are confirmed in the regression multivariate test. However, the third hypothesis is not confirmed. In other words, there is a significant negative correlation between the proportion of institutional ownership and CEO influence and the likelihood of fraud. So that the higher the proportion of institutional ownership and CEO influence, the more the likelihood of fraud will decrease, and the lower the proportion of institutional ownership and CEO influence, the more the likelihood of fraud will increase. Therefore, the CEO influence can be considered as factors contributing to the earnings management, which means that firms with great influence of the CEO may be more vulnerable to earnings management.

These results correspond with agency theory. In addition, the presence of institutional shareholders is a factor in reducing earnings management and subsequently reducing the probability of fraud. The results are consistent with literature and theoretical principles in this regard, such as efficient monitoring hypothesis.

According to the hypothesis of efficient monitoring, large institutional investors have opportunities, resources, expertise and ability to monitor, discipline and affect the managers. Large institutions, due to consideration to their risk, demand more oversight on managers. Therefore, higher monitoring of the institutional investors on managers' performance can act as a negative factor and in reducing earnings management and thus reducing the likelihood of fraud.

Results of testing the first and second hypotheses are consistent with the results of the study carried out by¹⁵ that there is a significant negative relationship between institutional ownership and the likelihood of fraud in the firms. According to the results of the research hypotheses the following suggestions can be offered:

The owner of the firms and the lawmakers are suggested pay more attention to factors such as duality of CEO to reduce the incidence of fraud. In order to protect the rights of minority shareholders and reduce fraudulent financial reporting, it is necessary to put the issue of Guidance Regulations adoption of listed firms on the Stock Exchange, taking into account the results of the research conducted on the subject of corporate governance, on the top priority of the Superior Council of Securities and Stock Exchange and consider sufficient implementation guarantees for it.

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