INVESTIGATING THE RELATIONSHIP BETWEEN THE CORPORATE GOVERNANCE STRUCTURE AND THE LIKELIHOOD OF FRAUDULENT REPORTING IN TEHRAN STOCK EXCHANGE

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ABSTRACT: *The aim of corporate governance is to increase confidence index of the activities of company and management policies in line with the interests of shareholders, in particular, and all the stakeholders, in general. Therefore, it can be expected that corporate governance mechanisms can control opportunistic behavior of managers in order to maximize their wealth and prevent damaging to the shareholders. The current research, supposing that the companies which are facing bankruptcy start manipulating the profits, investigates the relationship between corporate governance structure and the possibility of manipulating the profits of listed companies in Tehran Stock Exchange. Method of this study, regarding nature and content, is correlational. In this study, financial information of 115 companies listed in Tehran Stock Exchange, which were chosen as the sample using systematic elimination, has been reviewed during the periods 2009 to 2013. Logistic regression was used to test the four hypotheses. Empirical evidence from test hypotheses suggests that duality of the duty of executive director and audit quality affect on the possibility of manipulation of the profits of companies operating in the capital market so that, due to the duality task of managing director on the possibility of manipulating the added benefit, and by increasing the high quality of the audit, the possibility of manipulating the profit is reduced. However, the results confirm that the size of the board of directors and the independence of the board of directors do not have a significant effect on the possibility of profit manipulation.*

Keywords: The Possibility of Manipulating Profits, CEO Duality Task, Audit Quality, The Size of the Board of Directors, Independent Board of Directors

INTRODUCTION

Corporate governance, in general view, includes legal, cultural and institutional arrangements which determine the direction of movement and performance of the company. Elements which are presents in the stage, including shareholders and their ownership structure, members of board of directors and its compounds, the company management which is led by the managing director or CEO and other stakeholders who may have impact on the company's motion.

The most basic element of the corporate governance issue is to ensure proper governance of stakeholders on the management of the company and guidance of operational activities towards profitability. However, there are certain conditions cause that apply this governance may be facing with obstacles, especially for minority shareholders and affected their profits in investee companies. In this regard, researches show that good corporate governance potentially reduced the conflicts of interest in companies and improve their performance [1].

Based on representation theory, managers as the representatives of such shareholders may act or take decisions that are not necessarily in order to maximize shareholders' wealth. According to this theory, control or oversight mechanisms should be created to protect shareholders against conflicts of interest. Transparency issue in the financial statements and quality of provided disclosure information is considered as a practical mechanism. Transparency and quality of information flow cause to reduce the information asymmetry. According to the Enron and WorldCom's scandals and also Black September in 1997, Sarbinze Alexi's law and corporate governance gain specific importance and corporate governance became the main topic of academic researches; in the current study, corporate governance structure will be considered in four aspects (CEO duality task, independent board of directors, audit quality, the size of board of director).

The current study, with the assumption in which companies were facing with bankruptcy start manipulating the profits, investigates the relationship between corporate governance structure and the possibility of manipulating profits of listed companies on the Stock Exchange in Tehran in order to develop the theoretical foundations of this important issue .

Theoretical foundations of the research

Mechanisms of corporate governance cause to reduce the representative problems in companies. The quality of these mechanisms is partial matter and different from a company to another one. It is assumed that the quality of corporate governance in companies exist at all stages of value creation [2]. In general, executive director is responsible for commercial management of companies. While the boss responsible for the board affaires. Duality of CEO create time factor when the CEO serves as chairman of the board. In particular, suggested a Duality of authority and clear running by a single leader with quickly response to the outside events of the company, in addition, the duality increases the authority of the CEO with providing a basic power and locus of control .

According to the definition of draft regulation governance in Tehran Stock Exchange, non- executive director is a part-time board member who has not executive responsibilities. Based on the representative theory, the presence of independent outside directors (non-executive) in the board of companies and their oversight function as independent people is very helpful to reduce conflicts of interest between shareholders and managers. Fama and Jensen [3] showed that the board of directors is the biggest mechanism of the internal control of the company that is responsible for overseeing the company's senior management and cause to enhance the company's reputation.

The number of board members is one of the factors that have been issued by the concentration or dispersion of the vote in each of the decisions is effective on the corporate governance structure. The larger board is capable to set more correlation with stakeholders to establish the company's vital resources. This correlation enables companies to act more effectively. Conversely, Yermach [4] showed that more value of the market, also higher return on assets and higher return on sales related to the companies that have smaller board. He also concluded that any advantages of a large board are analyzed by communication and poor decision-making process.

Audit Committee is an integral part of corporate governance. Participants in the mechanism of corporate governance including the board, audit committee, senior management, internal auditors, external auditors and regulatory bodies such as the Stock Exchange, respectively. Audit committee responsible for monitoring the financial reporting process, internal control and risk assessment processes to evaluate the audit process (internal and external) and ensuring compliance with laws and regulations.

Among the all effective mechanisms of corporate governance, managers try to manipulate the amount and method of earnings. Using of accruals is one of the ways that managers applied to manipulate profits in accrual accounting systems. This behavioral phenomenon of managers called profits management [5]. On the other hand, factors such as manipulating of profit cause to increase the information asymmetry and representation conflicts. Management by making certain operational decisions, in other words, the manipulation of real activities tends to the actual management profits to gain the expectation profits. Real activities manipulation occurs when managers' forecasts indicate that profit will fail to meet their desire goals [6].

Kouki *et al* [7], in a study, investigated the impact of corporate governance on the profits manipulation and concluded that there is an independent audit committee and lack of CEO duality of task cause to prevents the manipulation of profits and also number of board are not much more nor much less because of that the number of board members can be optimized medium. Also, Teng [8] investigated the impact of corporate governance mechanisms to manipulate profits and concluded that a board with larger size and more active can be helpful to prevent profits manipulation and duality of CEO task cause to increase in profit manipulation. In Iran, Kurdestani and Tuttlee [6]. in his article titled profits quality and financial situation of firms, investigated profits in three levels of distress, bankruptcy and financial health of the firms. Classification of the financial situation of firms was measured based on Altman's adjusted mean. Their study findings show that there are significant differences between the average of stability and uniformity among three groups. Bankrupt companies have a low quality of earnings. These kinds of firm directors have greater tendency to manipulate profits.

THE RESEARCH HYPOTHESES

The first hypothesis: CEO duality task has a significant relationship with the possibility of manipulating profits in non-financial firms listed on Tehran Stock Exchange.

The second hypothesis: the independent board of director has a significant relationship with the possibility of manipulating profits in non-financial firms listed on Tehran Stock Exchange.

The third hypothesis: the size of the board has a significant relationship with the possibility of profit manipulating in non-financial firms listed on Tehran Stock Exchange.

The fourth hypothesis: the audit quality has a significant relationship with the possibility of profits manipulating in non-financial firms listed on Tehran Stock Exchange.

THE RESEARCH METHODOLOGY

The research methodology is descriptive and correlational. The study is causal-after events. Also, in terms of purpose, it is applied. The statistical population of research also includes all companies listed on the Stock Exchange in Tehran. In this study, systematic elimination method is used which statistical sample is a proper representative for the target statistical population. For this purpose, the following 5 criteria are taken into account.

- ✓ The number of firms that have been inactive in stock in period 2008-13
- ✓ The number of firms listed on the stock exchange after 2008
- ✓ The number of firms had been holding, investment, financial intermediation, banks or leasing
- ✓ The number of firms have change within the fiscal year during 2008-13 or fiscal year it is not up to the end of March
- ✓ The number of firms that stock trading has a long stop during 2008- 13 (over a year)
- ✓ The number of firms which their information is not available during 2008- 2013

Regarding to the above, 115 active companies, in order to test hypothesis, were selected in Tehran Stock Exchange. The study required data was collected the information from Rahavar Novin Software, published DVDs of stock exchange and the website of the organization.

HOW TO CALCULATE VARIABLES

Dependent variables: The possibility of profit manipulation

According to theoretical bases of Wan et al research (2014), companies facing bankruptcy are more likely to profits manipulating and Altman's model [9] was used to predict bankruptcy. Variable 0 or 1 for healthy firms against distressed companies are used Altman's Z score financial health. Healthy companies under financial pressure (0) and distressed companies (1) are assumed.

Altman's emerging market standards model (EMS) is a predictive model that combines four different financial ratios to determine the probability of business unit bankruptcy by using standard Z score composition. These standards are as follows:

$$Z\ Score = 6.56 * X1 + 3.26 * X2 + 6.72 * X3 + 1.05 * X4 + 3.25$$

Table 1) Altman's model

Working capital divided by total assets	X1
Retained earnings divided by total assets	X2
Earnings before interest and taxes divided by total assets	X3
The book value of equity divided by total debt	X4
Regional analysis Z score is as follows:	
Presented the healthy companies in study.	$Z > 5.65$
Presented companies are under the financial pressure.	$1.75 < Z < 5.65$
Presented companies are helpless.	$Z < 1.75$

Independent variables

CEO duality: this is one of the factors that may potentially affect the independence of the board and also create incentives and opportunities for executive director in order to pursue their interests by using the company's resources [10]. In this study, if CEO be a member of board, it is consider as a dual task of CEO.

Independence of the Board of Directors: According to the draft regulations governance of Tehran Stock Exchange, part-time nonexecutive director is a member of board without who has not executive responsibility. In this study, the ratio of non-executive director of board to the all board members is used to assess the independence of board members.

Audit quality: In current study, audit quality was considered by the size and reputation of audit institute. In this regard, in accordance with Saghafy and Motamedi [11], audit organization are considered as the largest and best-known audit institute in country and carried out audits by this organization as a high audit quality have been considered.

The size of the board of directors: the number of board members is one of the factors that have been issued by the concentration or dispersion of the vote in each of the decisions, is effective on the corporate governance structure. In this study, the natural logarithm of the total number of board members has been used for its size.

Control variables

Leverage: financial leverage of the company (total debt to total assets)

Size: size of company (logarithm of total assets of the company)

Descriptive statistics of the research variables

Summary of descriptive statistics of the variables after the screening and removal of outliers are presented in Table 2 .According to Table 2, the average possibility of manipulating profits of sample companies equals to 0.1252 and suggests that there is a possibility of earnings manipulation 12.52 percent of the observations. Also, the average size of the board of directors of the sample companies which measured by the natural logarithm of the number of board members equals to 1.60 and the lowest and highest of them are 09/1 and 94/1, respectively.

Table 2) descriptive statics of research variables

Variable	*Observations*	*Mean*	*Standard deviation*	*Minimum*	*Maximum*	*Skewness*	*Elongation*
The possibility of earnings (*FV*) manipulation	575	0.1252	0.3312	0	1	2.264	6.129
Board size (*BRD_SIZE*)	575	1.6070	0.0384	1.0986	1.9459	-7.516	125.12
independent Board (*BOARD_IE*)	575	0.6673	0.1821	0	1	-0/452	3.354
Duality of CEO duality task (*BRD_DUAL*)	575	0.2104	0.4079	0	1	1.420	3.018
Audit quality (*AC_EFF*)	575	0.2400	0.4274	0	1	1.217	2.482
(*Size*)Firm size	575	13.782	1.392	10.031	18.454	0.692	3.985
Financial leverage (*Lev*)	575	0.6119	0.187	0.0964	1.3032	0.028	3.311

The average of independent board that was measured by the members of board of directors to total equals to 0.6673 and indicates that 66.73% of members of the board are non-executive of directors. Also, according to the CEO duality tasks, obtained descriptive statistics indicate that 21.4% of the executive director observations have duality of tasks and at the same time of the position CEO, he or she is also the chairman or vice-chairman.

In addition, according to obtained descriptive statistics, audit quality equals to 24% of the above observations and their audit done by audit organization.

RESULTS OF THE RESEARCH HYPOTHESES TEST

Research model estimation

Research hypotheses were tested through regression model number (1) and by using logistic regression:

$$FV_{i,t} = \beta_0 + \beta_1 BRD - Size_{i,t} + \beta_2 BOARD\_IE_{i,t} + \beta_3 BRD - DUAL_{i,t} + \beta_4 AC\_EFF_{i,t} + \beta_5 Lev_{i,t} + \beta_6 Size_{i,t} + \varepsilon_{i,t} \quad (1)$$

Table 3 shows logistic regression results for the model (1). Based on the obtained results observe that the percentage of total dehumidified accurate classification model equals to 92.35 percent. Thus, were correctly classified that 40 observations (year-company) from 52 observations have the possibility of profit manipulation (76.92 percent) and 491 observations from 523 observations have no possibility of manipulating profits (88/93 percent).

Table 3) accuracy percent of the classification model (1)

Observations	prediction		
	earning		accuracy percent
	Manipulation possibility	Without Manipulation possibility	
Manipulation	40	12	76.92
Without Manipulation	32	491	93.88
Total percentage			92.35

Also, in Table 4, summary of statistics of the model (1) is presented. In considering the total significance of the model, if the significance level (P-Value) is less than 05/0 that is the significantly test model, total significance of model was approved at a confidence level of 95%. The significance level of the test, in accordance with Table 4, equals to 0.0000 and shows the significance of model.

Table 4) Summary of statistics model (1)

Test	Statistic value	Significant level
Likelihood ratio	219.84	0.000
Hasmer – Lamsho statistics	4.375	0.821
McFadden's coefficient of determination	0.506	

The results of the estimation model and its coefficients presented in table (5):

In this study, the goodness of fit index is measured by Hosmer-Lemsho's statistics, regarding to that the level of significance (P-Value) of the test in accordance with table 4-4 equals to 0.8218, so goodness of fit was achieved. McFadden determination coefficient indicates the degree of shared variance between two variables and shows the how much of the percentage of variation, in the dependent variable, explained by the independent variables. The scope of these statistics is between 1 and 0 so that the number 1 represents the complete explain of the observed variables by the model and value of zero indicates that the model does not explain any variables. This statistic, according to the table (4), is equivalent to 50.68% that indicate explain of 68/50 percent of dependent variable by the independent and control variables in the model. Finally, in order to investigate co-linearity between research variables, according to the amount of variance, inflation factors (VIF) are less than 5 for all variables and it is close to one, strong co-linearity between variables does not exist. The results of the model estimation coefficients presented in table (5):

Table 5) coefficients of the model (1)

variable	Coefficient	Statistic Z	Significant level	Statistic *VIF*
Constant coefficient	-15.265	-2.349	0.018	-
Board size	-0.388	-0.101	0.919	1.020
Board independence	0.138	0.136	0.891	1.122
Duality of CEO	1.3005	3.345	0.0008	1.068
Audit quality	-0.865	-2.344	0.091	1.120
Financial leverage	638.17	8.321	0.000	1.160
Firm size	009.0	0.077	0.938	1.096

Based on the results presented in table 5, as the level of significance (P-VALUE) Z statistic regarding to the CEO duality task variable have been smaller than 0.05 (0.0008) and the coefficient is positive (1.3005), So H0 hypothesis is rejected and duality percentage of CEO task have direct and significant relationship with the probability of earnings manipulation at 95% of confidence level, so the first hypothesis is approved by 95 percent.

Also, since the significance level of (P-VALUE) Z statistics related to audit quality was less than 0.05 (0.0191) and the coefficient is negative (- 0.8658), so H0 hypothesis is rejected and audit quality has a significant and reverse correlation with the probability of profit manipulation at the 95% of confidence level. So, the fourth hypothesis is approved by 95 percent of confidence. The research results of the first and fourth hypothesis compatible with the theoretical foundations of the study hypothesis with the results of Rezai and et al [12].

In contrast, since the level of significance (P-VALUE) variable Z statistics related to the independent board of directors and board size is larger than 0.05 (0.8916) (0.9193), so H0 was approved and the second and third research hypothesis was rejected with 95% confidence at 95% level of confidence. These findings are incompatible with the theoretical foundations of the research and the results of Rezai *et al* [12]. The results of the second hypothesis test corresponded with the results of Ghanbari [13] and Baradaran Hassan Zadeh *et al*. [14]. Because, the researchers found that the independent board of directors, as a corporate governance mechanism, had no effect on corporate performance indicators.

CONCLUSION

Recent study with the assumption that the companies were subject to bankruptcy start to manipulating the profits, they investigate the relationship between corporate governance structure and the possibility of profit manipulation of listed companies in the Stock Exchange in Tehran. Methodology of this research, regarding nature, is correlational. Financial data of 115 companies listed in Tehran Stock Exchange extracted by the method of systematic elimination of statistical sample and investigated during the period 2009 to 2013. The results of the first hypothesis test showed that CEO tasks duality have a significant and direct relationship with the possibility of profit manipulation. In this regard, it can be argued that CEO duality tasks potentially threat the independent board which limits the efficiency and also the supervisory role of the board.

Shareholders of companies whom governance system faced with CEO duality task problem feel more risk about the threat of their interests in the company, because, according to the multiplicity of tasks, director neglect to perform his duties and cannot adequate monitoring on financial decisions of the corporate. Also, the results of testing hypotheses related to audit quality with the possibility of manipulating profits in non-financial companies show that with the increase in the audits quality, the amount of the possibility of manipulating profits companies in Iran capital market reduced. By increasing the quality of auditors and subsequently enhance the quality of corporate financial reporting and possibility of fraud financial statement reporting in companies and also the likelihood of bankruptcy reduced. If the proceedings are conducted by a reputable audit firm, there is partly confidence about the effective protection of the interests of shareholders in the company.

In contrast, the results of the second hypothesis test show that do not happen an important change in the possibility of manipulating profits of the firms listed in the stock exchange by increasing or decreasing the independence of board members. According to research theoretical bases, increase in the proportion of non-executive members of board, cause to increasing the company's value. According to the findings of the second hypothesis, may be non-executive members of the board, in particular, do not use their authority to control the management policies in the field of prevention of earnings manipulation or do not know enough about it.

Such an approach leads to an increase in the number of the board and particularly non-executive members reduce the power of other governance mechanisms. Because it's possible that investors and creditors relied on that non-executive board members play their role optimally, they use less than above their regulatory tools. The third hypothesis test results showed that a significant change does not occur in the probability of earnings manipulation of listed companies in the stock exchange by increasing or decreasing board size.

Lipton and Lorch [15] were the first people who assumed that the size of the board is an independent control mechanism. In particular, they argue that the large boards compared to small board may be less effective. Apart from size, coordinate of the larger boards are more difficult. In this situation, the problems of lack of coordination between the members of the board increases monitoring and information asymmetry costs and limit the control of managers. According to the results of the third hypothesis of the research, it seems that the above theoretical and empirical bases are not true in the sample companies.

For future studies, recommended to the researchers, companies based on corporate governance mechanisms were ranked and the possibility of earnings manipulation in them should be considered.

Also, according to the results, it is suggested that:

1) According to the results of the first hypothesis, it suggested that try to distinguished duties of CEO of companies and chairman of the board. It is also recommended to minority shareholders and users of financial information are careful about the kind of audit firm which is responsible for audited the company.

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