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# The Relationship between the Properties of the Board of Management with Earnings Management of Listed Companies in Tehran Stock Exchange

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**ABSTRACT:** This research was aimed to study the relationship between the properties of the board with earnings management of listed companies in Tehran Stock Exchange. This study was applied research type and uses event study method. Statistical population of this study consisted of 91 companies listed on Tehran Stock Exchange, which their data during years 2009 to 2013 have been statistically analyzed. For data analysis and hypothesis testing, regression technique of panel data was used. In this study, three features of ratio of non-executive board members, the duality of CEO's duty and financial expertise of the Board are surveyed as the mechanisms of corporate governance and earnings management in listed companies in Tehran Stock Exchange. Results of this study indicate that there was not significant relation between non-executive board members and financial expertise of the Board of Directors with earnings management in listed companies in Tehran Stock Exchange and also it shows that there was a significant relation between the duality of CEO's duty with earnings management in listed companies in Tehran Stock Exchange.

**Keywords:** Features of the Board, Earnings Management, Non-executive Board Members, The Duality of CEO's Duty, Financial Expertise of the Board of Directors.

## INTRODUCTION

One of the most striking characteristics of human civilization is the emergence of organizations and social institutions and their increase. Nowadays with the passage of time, competitive environment, the separation of management from ownership and specialization of corporate governance, use of professional managers and financial experts is needed more than whenever. Administrators with the proper management of resources and capital expenditures, help company in order to achieve the main goals. However, because of a conflict of interest, directors do not "constantly seek to maximize earnings and wealth of owners as the main target. One of the most important activities of managers is preparing financial reports in order to meet the owners, other interested institutions and principles. The cost and benefit, which expresses the income statement, has a particular position. In fact, earnings as a result of economic activities and accounting processes, is influenced by the different policies applied by managers. And managers because of various methods try to change financial benefits, through the use of accounting reasons, in order to meet their goals and policies (Baharmoghadam et al., 2010).

According to Schipper (1989) the aim of targeted earnings management interventions at the organization's financial reporting process is to obtain personal benefits. Blokovy (2004) believes that earnings management is part of the accounting design, which means earnings management is a creation of pre-built object and image to transfer data using accounting information. Earnings smoothing, earnings management, accounting bogus and accounting system failure are various aspects of designed accounting. Financial analysts because of different accounting methods and the possibility of earnings manipulating and earnings management by executives, define reported net earnings different from the real benefit. The earnings management is as an umbrella for activities, which affects reported accounting earnings and its interpretation. It begins from accountants decisions and partly indicates latent economic benefit due to the accounting treatment and amount of obligations, during preparation of the financial statements. And its' end is in activities that affect the interpretation of periodic reports (Butler et al, 2004).

This research aims to investigate the relationship between corporate governance mechanisms (board features) with earnings management of listed companies in Tehran Stock Exchange's. It is hoped that the results could be practical guide for decision-makers and the way for future research.

**Background and Theoretical Frameworks**

Venkatachalam (2012) through a research has found that the number of board members is not an important factor in limiting real earnings management. As well as separation of duties in senior management do not affect real profit management. And the independence of the board of directors has limiting effect on real earnings management.

Xie et al (2003) in an article have examined the role of board members, audit committee and executive committee for the prevention of earnings management of the company. Results of their study shows composition of the board and the audit committee is related with the possibility that a company be encouraged to have earnings management. The meetings of the board and the audit committee are related with reduction in optional ongoing accruals. Finally, they concluded the audit committee and board activities and financial skills of their members, are important factors in limiting the willingness of managers to earnings management.

Peasnell et al (2000) have examined earnings management in the UK. They have focused on the role of non-executive directors and audit committee. The results showed that there is an inverse relationship between the numbers of non-executive directors with the management of abnormal accruals. But when the earnings management is high, there is no evidence that non-executive directors reduce the abnormal accruals.

Aghai and Chalaki (2009) in their research studied the relation between characteristics of corporate governance earnings management of listed companies in Tehran Stock Exchange. In this study, corporate governance were measured using the characteristics of concentration of ownership, institutional ownership, the influence of the CEO, the duality of CEO's duty, the size of the board, the independence of the board. To measure earnings management abnormal accruals was also used. The results showed that there is a negative significant relationship between two characteristics of institutional ownership and independence of the board of directors with earnings management. And there is no significant relationship between other features of corporate governance with earnings management.

Mashayekh and Ismaili (2006) examined relationship between earnings quality and some aspects of the corporate governance such as ownership percentage of board members and number of non-executive directors, among the 135 companies listed in the Tehran Stock Exchange in the period between 2002- 2004. And assessed earnings quality based on accruals criteria. After testing the hypothesis of the study it was concluded that there is no relation between earnings quality and ownership percentage of board members and number of non-executive directors. But between the accrual and the percentage of ownership of the board members a non-linear relationship was observed. Hypothesis test showed that ownership percentage of board members and number of non-executive directors has not an important role in improving the profits quality of listed companies.

Investors in this competitive world and limited financial resources and the impact of profit index the price of and shareholders' value; pay more attention to the profit topics. Reported profit has always been as a financial decision criteria. And financial analysts considered profit as a prominent factor in their deliberations and judgments. On the other hand, considering the separation of ownership from management, the absence of a comprehensive theory despite accepted accounting standards, existence of conflict of interest and exclusive access of managers to some financial information and also features of accrual accounting in the context of the right to choose management between different methods of accounting, there is possibility of earnings manipulation and misleading the people in their decisions. In fact managers, in order to increase the value of their companies within the framework of the legal requirements and accounting, begin to manipulate profits. And in comparison, the accrual items are faced with Management manipulating more than cash items. And of course this is not always to discredit the concept of accruals and often represent opportunities for future growth and the company's good performance in the past (Mehrani et al., 2010). On the other hand, earnings management can be useful, because it can improve informational value of profit by transferring private information to shareholders and the public (Jiraporn et al., 2008).

Earnings management is public intervention in the external financial reporting process with the intention to gain profit. Earnings management occurs when managers use their own judgments in the financial reports and to manipulation structure transactions to change the financial reporting. The goal is to mislead the benefit owners in the economic performance of company or affecting the results of contracts that its' conclusion causes achievement of self-interest. Earnings management is considered one of the controversial and attractive issues of and accounting research. Because investors as one of the important factors in decision-making have special attention to benefit, these studies have the importance of its own in behavioral aspects. Research has shown that low volatility and stability of earnings indicate its quality. There for, investors invest with more confidence in shares of companies, which their profit process is more, stable (Nourosh et al., 2005).

Considering the importance of this benefit and its impact on economic activity and considering the relationship between profit and the characteristics of the Board of Directors, the necessity of implementing the principle of privatization in the country and also due to the different results obtained from different studies around the world, this study sought to examine this issue that is there any relationship between corporate governance mechanisms (board features) with earnings management of listed companies in Tehran Stock Exchange?

## METHODOLOGY

The aim of the present study was an applied research. The method of data collection was descriptive – correlation and because it indicates the causal relationships between variables, it uses event study method. In this study, the systematic elimination sampling method is used that from target population, companies have been selected according to the following conditions and limitations:

1. Companies must be adopted before 2009 at Tehran Stock Exchange
2. There should be no interruption more than six months in trading companies.
3. In terms of increased comparability, the financial period should be ending in March.
4. Company should not be one of investment, banks and insurance companies.
5. The financial information will be available during the study period.

By applying the above conditions, a sample of 91 companies were selected in the study.

### Variables of study

***Dependent variable: Earnings Management:*** This variable is measured by discretionary accruals index. Accruals have no direct cash impact and are opportunistic manipulation tools of profit. And it is achieved from the difference between operating profit and cash flows caused by operating activities. Accruals are divided into two categories: and involuntary, those voluntary accruals are as a representative for earnings management (Aghai and Chalaki, 2009).

Total accruals (TAi, t) are obtained from the difference between profit before unusual items (EARNi, t) and cash flows from operating activities (CFOi, t).

$TA_{i,t} = EARN_{i,t} - CFOi,t$

The following models have been estimated for total accruals. In order to standardize the figures and ease of calculation, side of the equation has been divided on the assets of first period.

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha_0 \left(\frac{1}{A_{i,t-1}}\right) + \beta_1 \frac{\Delta REV_{i,t}}{A_{i,t-1}} + \beta_2 \frac{PPE_{i,t}}{A_{i,t}} + \varepsilon_{i,t}$$

In which:

$\Delta REV_{i,t}$ = Changes in annual income (the difference was the beginning of the end of each year with income of the same year) in year t for firm i

PPEi,t= Property and equipment of the same year (after deducting accumulated depreciation of fixed assets per year) in year t for firm i

0α and 1β and 2β regression coefficients and ε is an error in year t for firm i.
Using the method of estimation least squares between years 2009 to 2013 was obtained.
The coefficients of the model will be used in the model to obtained nondiscretionary accruals as follows:

$$NDI_{i,t} = \alpha_0 \left(\frac{1}{A_{i,t-1}}\right) + \beta_1 \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \beta_2 \frac{PPE_{i,t}}{A_{i,t-1}} + \varepsilon_{i,t}$$

RECitΔ the change in accounts receivable (difference accounts receivable at the end of each year with the beginning of the year accounts receivable) in year t for firm i.

The difference between the accruals nondiscretionary accruals and discretionary accruals obtained as follows (NikuMaram and HeidarzadehSalthe, 2010):

$$DA_{i,t} = \frac{TA_{i,t}}{A_{i,t-1}} - NDA_{i,t}$$

***Independent variable: The proportions of non-executive board members:*** Part-time member of the board who has no executive responsibilities in the company (Hassas-yeganeh and Pourianasab, 2010).
Financial expertise of the Board: The number of members of the board who has a bachelor's degree or higher in the fields of accounting, management and banking are (Izadinia and Rasaeian, 2010).

The duality of CEOs' duty: this variable is a virtual variable that when the CEO is also the Chairman, it is zero and when CEO and Chairman of the Board are not one person the number is one.

***Control variables***: Financial leverage: These ratios determine and evaluate the relation of financial resources used by business unit In terms of debt and salary of shareholders and actually study their composition (Aghaei and Chalaki, 2009). In this study, to measure a company's financial leverage, the book value of long-term debt divided by total assets is used (Sinai and Nissi, 2003).

FL=BV/TOTL ASSETS

***Systematic variables***: In order to measure systemic risk of company sensitivity coefficients (β) is used. Simply put systemic risk per share is determined by the rate of return, which the owner of the contribution should expect to have it (Peyno, 2002). In this study, in order to calculate beta coefficient of software "Rahavard no" is used.

## RESULTS

The hypothesis of "There is significant relation between the characteristics of the Board of Directors with earnings management of listed companies in Tehran Stock Exchange's" is divided into Sub-hypothesis and each of them is tested separately.

Hypothesis of 1-1 states that there is significant relation between the proportions of non-executive board members with earnings management of listed companies in Tehran Stock Exchange's.

Table1. Results of test hypothesis 1-1.

| $=\alpha_0 + \alpha_1 CD_{i.t} + \alpha_2 FL_{i.t} + \alpha_3 B_{i.t} + \varepsilon_{i.t} EM_{i.t}$ | | | |
|---|---|---|---|
| Dependent variable | Coefficient | t | Level of error |
| *y*-intercept | -0.049 | 7.581 | 0.000 |
| CD | 0.042 | -7.051 | 0.000 |
| FL | -0.069 | -1.89 | 0.059 |
| B | 0.003 | 1.85 | 0.065 |
| Determination coefficient | 0.387 | Adjusted determination coefficient | 0.229 |
| F | 2.45 | Error level of F | 0.000 |
| Durbin - Watson 2.36 | | | |

Results of table 1 indicate that there was no significant relation between the proportions of non-executive board members with earnings management of listed companies in Tehran Stock Exchange. According to its Error level, which was more than 0.05, this hypothesis cannot be confirmed at the confidence level 0.95. Determining factor model indicates that about 34% of changes of earnings management variable are justified by independent variable of the proportions of non-executive board members and control variables. According to this result that Durbin- Watson statistic was between 1.5 and 2.5, It can be confirmed that the errors or the difference between the real values and the predicted values, through regression model are independent of each other. As we can see that significant level for F was 0.000, which means regression model can be confirmed. Hypothesis of 2-2 states that there is significant relation between the duality of CEO's duty with earnings management of listed companies in Tehran Stock Exchange's.

Table 2. Results of test hypothesis 2-2.

| $=\alpha_0 + \alpha_1 CD_{i.t} + \alpha_2 FL_{i.t} + \alpha_3 B_{i.t} + \mathcal{E}_{i.t} EM_{i.t}$ | | | |
|---|---|---|---|
| Dependent variable | Coefficient | t | Level of error |
| *y*-intercept | -0.049 | 7.581 | 0.000 |
| CD | 0.042 | -7.051 | 0.000 |
| FL | -0.069 | -1.89 | 0.059 |
| B | 0.003 | 1.85 | 0.065 |
| Determination coefficient | 0.387 | Adjusted determination coefficient | 0.229 |
| F | 2.45 | Error level of F | 0.000 |
| Durbin - Watson 2.36 | | | |

Results of table 2 indicate that there was significant relation between the duality of CEO's duty with earnings management of listed companies in Tehran Stock Exchange. According to its error level, which was less than 0.05, this hypothesis can be confirmed at the confidence level 0.95. Determining factor model indicates that about 38% of changes of earnings management variable are justified by independent variable of the proportions of non-executive board members and control variables. According to this result that Durbin- Watson statistic was between 1.5 and 2.5, it can be confirmed that the errors or the difference between the real values and the predicted values, through regression model are independent of each other. As we can see significant level for F is 0.000, which means regression model can be confirmed.

Hypothesis of 3-3 states that there was significant relation between the financial expertises of the Board with earnings management of listed companies in Tehran Stock Exchange's.

Table 3. Results of test hypothesis 3-3.

| $=\alpha_0 + \alpha_1 CD_{i.t} + \alpha_2 FL_{i.t} + \alpha_3 B_{i.t} + \mathcal{E}_{i.t} EM_{i.t}$ | | | |
|---|---|---|---|
| Dependent variable | Coefficient | t | Level of error |
| *y*-intercept | 0.012 | 1.132 | 0.258 |
| CD | 0.019 | 1.16 | 0.246 |
| FL | -0.070 | -1.91 | 0.055 |
| B | 0.005 | 2.59 | 0.01 |
| Determination coefficient | 0.339 | Adjusted determination coefficient | 0.169 |
| F | 1.99 | Error level of F | 0.000 |
| Durbin - Watson 2.34 | | | |

Results of table 3 indicate that there was no significant relation between the financial expertises of the Board with earnings management of listed companies in Tehran Stock Exchange's. According to its error level, which was more than 0.05, this hypothesis cannot be confirmed at the confidence level 0.95. Determining factor model indicates that about 34% of changes of earnings management variable are justified by independent variable of the proportions of non-executive board members and control variables. According to this result that Durbin-Watson statistic was between 1.5 and 2.5, it can be confirmed that the errors or the difference between the real values and the predicted values, through regression model are independent of each other. As we can see significant level for F was 0.000, which means regression model can be confirmed.

## DISCUSSION AND CONCLUSION

One of the consequences of conflicts of interest in corporations is financial reporting directed by managers. Managers as a responsible for preparing the financial statements, fully aware of the company's financial situation and having a greater awareness in compare to the users of financial statements, potentially try to portray a good image of the entity. This is possible through applying ideas in reported profit of the financial unit. The results of this operation will be a better picture of business than the actual situation. And motivation of injecting capital and financial resources by people outside the organization will increase (Elyasiani et al., 2006). This research aims to investigate the relationship between corporate governance mechanisms (board features) with earnings management of listed companies in Tehran Stock Exchange. According to theoretical principles presented, this study has one main hypothesis and three sub-hypotheses. All hypotheses were tested in significant level of 95 % and error level of 5%. According to this result, that two sub-hypotheses were not confirmed, we can conclude that the main hypothesis also cannot be confirmed.

***First sub-hypotheses:*** There is significant relation between the proportions of non-executive board members with earnings management of listed companies in Tehran Stock Exchange's

The results of first hypothesis show that there is no significant relation between the proportions of non-executive board members with earnings management of listed companies in Tehran Stock Exchange's. This result matches with the results of Park and Shin (2004) which concluded that increasing number of non-executive directors to the board alone will not lead to an improvement in corporate governance practices (evidence on the relationship between the manipulation of obligations and non-executive directors in the board was not found) and also results of Yazdanian (2006) which show that there iz no relation between non-executive directors and earnings management. But it is inconsistent with results of Sita Atmaja etal (2008) which says that independent board is inversely associated with earnings management.

***Second sub-hypotheses:*** There is significant relation between the duality of CEO's duty with earnings management of listed companies in Tehran Stock Exchange's

The results of second hypothesis show that there was significant relation between the duality of CEO's duty with earnings management of listed companies in Tehran Stock Exchange, which means with increasing the duality of CEOs' duty the earning management increases. Existence of duality of CEOs' duty, reduction of corporate performance as well as reducing the transparency of information increase earnings management. Theoretically, when the CEO is placed in the position of Chairman of the Board, conflicts of interest arise. In fact, the separation of the position of Chairman of the Board and CEO, increase the company's performance and information transparency by limiting earnings management behavior. The result of these research is compatible with results of Jensen and Mac Ling (1993), Coles et al (2001), Balatbat et al (2004), Petra (2005), Chang and Sun (2008).

***Third sub-hypotheses:*** There is significant relation between the financial expertises of the Board with earnings management of listed companies in Tehran Stock Exchange's.

The results of third hypothesis show that there is no significant relation between the financial expertises of the Board with earnings management of listed companies in Tehran Stock Exchange's. And this hypothesis is not confirmed. It should be noted that all financial expertise of the Board are executive members, while considering regulatory role and function of non-executive members of board, it is obligated in the context of corporate governance on the presence of at least one non-executive financial member on the Board. . The result of this research is compatible with results of Kaplan and Minton (1994) and Hillman and Patrol (2000).

## Conflict of interest

The authors declare no conflict of interest

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