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The Relationship between the Components of Corporate Transparency and the Earnings Management

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ABSTRACT

This study evaluates the effect of corporate reporting transparency and the disclosure in three areas including the ownership structure, financial position, and the board structure on the earnings management; and in this regard the transparency and disclosure indexes based on the Standard model S and P have been used for evaluating the corporate transparency and also the discretionary accrual item based on the modified Jones model has been used as the index of earnings management. For this purpose, 98 companies have been studied in terms of imposing the conditions on Tehran Stock Exchange during the time period 2008-2011 and the regression model and descriptive statistics have been used in order to test the hypotheses. The results suggested that there was a significant and negative relationship between the ownership structure and the earnings management, and the significant relationship between the transparency in the corporate financial performance and the level of earnings management was confirmed and this relationship was positive, but the significant relationship between the transparency in the board structure and the level of earnings management was not confirmed. Evaluating the effect of return on assets ratio and type of ownership on the level of earnings manipulation indicated that there is a significant and positive relationship between them, but the effect of financial leverage ratio and the nonexecutive board ratio and the size of corporation on the level of earnings management were not confirmed
KEYWORDS: Corporate transparency; discretionary accrual item; earnings management

INTRODUCTION

In democratic societies, access to transparent information is considered as one of the basic individuals' rights. Citizens have the right to have enough information about their stewards' decisions (governments and public institutions) and the bases of these decisions. This topic is considered as the basic essence of stewardship. In addition, information is considered as an important factor for the development of human relations [Watts and Zimmerman, 1986]. Appropriate and comprehensive transparency and disclosure of information of corporate annual reports are affected by decisions taken by a lot of people in society and especially investors in the capital market; on the other hand, the reported earnings in companies has been considered as one of the criteria for financial decision-making. But if the managers and owners' objectives are not aligned, the management may provide the financial statements in line with his benefit. Moreover, accounting information users have always been dissatisfied with the accounting information asymmetry (moral hazard) and always been looking for information by which can make logic decisions [Yan et al., 2010; Sazila et al., 2002; Van and Wan, 2009; Watts and Zimmerman 1986]. It seems that the more corporate transparency and disclosure of information is a strategy for reducing the income manipulation reported by managers.

In this regard, several aspects of disclosure, which are published in the report of Corporate Transparency, are confirmed by the Institute of Standard and Poor's (s & p) and they emphasize on the information disclosure in terms of ownership structure, financial transparency and board structure and management by companies and are published for the America-New York stock exchange companies and used as the basis for the corporate transparency. (Sandip et al., 2003) In addition, the relationship of those indexes with the level of discretionary accrual items reported by the management has been studied as an indicator of earnings management. (Healy and Wahlen, 1999; Ziyang, 2006) In this study, after calculating the earnings management index by the modified Jones model and also the corporate transparency index by the help of standard model and Poor's for each company, we evaluates the relationship between them as well as the direction of relationship.

Research Background and hypotheses Derivation

Patten and Trompeter (2003) have evaluated and tested the effect of environmental disclosure on the earnings management during a study results in the United States and their results have confirmed the negative relationship between the discretionary accrual items and the environmental disclosure. They have concluded that this suggests that the environmental disclosure has been as a mean which affects the reduction of pressure on the company and the reduction of legal costs. Hermalin et al. (2007) have examined the relationship of disclosure

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and transparency with the earnings management; the result of their study in the surveyed companies has confirmed the results of previous research based on the inverse relationship between the disclosure and the earnings management. Shaw (2003) has investigated the relationship between the quality of information disclosure and the earnings management and concluded that the companies with higher quality of disclosure use the management and income manipulation tools more than companies which are in lower rates. Sun et al. (2010) have examined the relationship between the environmental corporate disclosure and the earnings management and the effect of corporate governance on this relationship. The result of this research suggests that there is no significant relationship between the discretionary accrual items and the environmental corporate disclosure. Moreover, the research has concluded that some of the features of corporate governance affect the relationship between the disclosure and the earnings management. Lobo and Zhou (2001) have introduced the level which companies engage in earnings management as an important determinant for decision-making about the disclosure of information. They also have found that the positive relationship between the quality of disclosure and the earnings management in the presence of earnings management has been arisen from the exchange of information. Through an analytical method, Truman and Titman (1988) have indicated that the presence of information asymmetry between the board management and stockholders was an imperative situation for the earnings management. In their model, which is used in order to measure the earnings management, the manager has more information than the stockholders. Schipper (1989) has considered the information asymmetry as an additional condition which should be existed for the income analysis model. Bodaghi and Bazzaz-zadeh (1387) have evaluated the relationship between the earnings management and the quality of disclosure; the results of tests in this research and in year to year cross-sectional study confirm the hypothesis and the significant and negative relationship between the quality of disclosure and the earnings management just for one year; and for a total of three years, the results indicate that there is no significant relationship. In 1387, Nourvash and Hosseini found that there was a significant negative relationship between the quality of corporate disclosure and the earnings management, and also a significant negative relationship between the timeliness of corporate disclosure and the earnings management.

Numerous studies have been conducted in Iran and other countries and all of them emphasize on a direct and significant role of corporate disclosure on the possibility of income figures manipulation. (Joe and Yongtae, 2007; Khaleghi Moghadam and Khalegh, 1388; Chi-Valin, 2008; Sandip et al., Lee, 2009)

According to the results of research conducted in other countries as well as the legal and economic environmental conditions of Iran, the following assumptions are expressed:

1. There is a significant relationship between the corporate transparency about the ownership structure and the owners' rights with the level of discretionary accrual items.
2. There is a significant relationship between the corporate transparency about the financial figures and information with the level of discretionary accrual items.
3. There is a significant relationship between the corporate transparency about the board and managers' structure with the level of discretionary accrual items.

RESEARCH METHODOLOGY

The presented study is applied and correlative based on the classification of research because it studies the relationship between the earnings management and the corporate transparency; in addition, it is considered as a kind of post-event because it uses past data.

Definition of variables

Corporate transparency is considered as the independent variable of research; the famous and well known "Standard and Poor's" model" has been used in this study in order to measure the transparency, and its triple reporting criteria are as follows:

Ownership structure and owners' rights - financial transparency and information disclosure - board and management structure

Transparency in the ownership structure and owners rights emphasizes on the criteria such as disclosure of shareholders based on the nature (legal, real, public or private), number of stock and the nominal value of issued stock, name and number of stock owned by 1, 3, 5 and 10 major stockholders relations and the percentage of stockholders' mutual ownership. Financial transparency and information disclosure is measured by cases such as description of strategic planning, details and indicators related to the business environment and the industry trend, details related to the production, sales and profitability, products and sectors of activity. Transparency in the board and management structure is measured by the help of criteria such as providing the information about the administer and other board members except their names and post such as their backgrounds, past experiences and the number of years which they have cooperated with the company. If any of above information is seen in the reports related to the company, the score 1 will be given to it otherwise the score zero be given.

The final score of corporate transparency and disclosure (TDS) for each company is calculated through the following formula:

$TDS = \sum \sum S_{jk} / TOTS$

TDS: final transparency and disclosure score, J: measuring area for transparency, K: number of criterion

TOTS: Maximum assignable score, S_{jk}: Score assigned to each criterion

Based on the above cases, the research model is defined as follows:

Model (1) $EM = \alpha + \beta TDS + з$

EM is the index of earnings management and is considered as a dependent variable of research. TDS is the corporate transparency and the independent variable.

Measuring the Variables

Measuring the earnings management is done according to the most popular model for measuring it (Modified Jones model). In this model, which tries to separate the nondiscretionary and discretionary accrual items, it has been tried to estimate the effect of economic conditions of a business unit on the accrual items for a specified time period, which is known as the event period, and the sales variables, properties, plant and equipment as follows:

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}}\right) + \alpha_2 \left(\frac{\Delta REV_{it}}{A_{it-1}}\right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}}\right) + \varepsilon_{it}$$

In this formula, TA represents the total accrual item, A: total assets, ΔREV: sales change, and PPE: properties, plant and equipment. After estimating the parameters of above model by the help of information of study period by applying the time-series models, the non-discretionary accrual items are calculated for the "estimation period" as follows:

$$NDA_{it} = \alpha_1 \left(\frac{1}{A_{it-1}}\right) + \alpha_2 \left(\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}}\right) + \left(\frac{PPE_{it}}{A_{it-1}}\right)$$

ΔREC is the receivable change.

Finally, the discretionary accrual items or the earnings management index is calculated as follows:

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it}$$

DA is the discretionary accrual item.

It is worth noting that based on the available theoretical principles, the total accrual items is calculated by two ways based on the current data. In this research, we use a formula which calculates the difference between the net income and the cash from operations as the total accrual item:

$TA_{it} = E_{it} - OCF_{it}$

In the above formulas, E represents the net income before extraordinary item and OCF is the operating cash flow.

Therefore, the research model will be as follows:

Model (2)

$EM = \alpha + \beta TDS + \beta\ SIZE + \beta LEVE + \beta\ ROA + \beta OWN\ CONC + \beta TYPE + \beta\ NONE\ EXE + з$

EM: earnings management, TDS: transparency and disclosure score, SIZE: logarithm of corporate size, ROA: return on assets ratio, OWNE CONC: corporate ownership concentration rate, TYPE: Type of corporate ownership, NONE EXE: percentage of nonexecutive board

Corporate size: It is based on the related literature and texts for measuring the criteria of corporate size and the logarithm of total assets

Leverage ratio: for measuring it we divide the sum of long-term and short-term financial facilities by the corporate total assets.

Company profitability: for determining the criterion of profitability we use the ratio of return on assets (ROA) or the net profit ratio to the total assets.

Focus on the property level: For measuring the concentration of ownership rate, the Herfindahl-Hirschman model has been used.

In order to calculate the concentration of ownership ratio, the "Herfindahl-Hirschman" index has been used. The mentioned index is obtained from the sum of squared percentage of stock owned by the corporate stockholders. The ownership concentration increases in line with the increase of index. And when the total stock belongs to one person, it will have the highest value. The HHI is calculated as follows:

$\mathbf{HHI = \Sigma (p_i / p * 100)^2}$

Type of corporate ownership: It is applied in order to determine the type of corporate ownership in terms of governmental or private statutory criteria 50%; if the percentage of government ownership, directly or indirectly, is 50 percent and higher than 50 percent, the company is considered as the public company otherwise it is a private company.

The ratio of nonexecutive board members is equals to: the total number of board members / number of nonexecutive board members.
Information needed for the variables of research have been collected from the audited financial statement including the income and loss statement, cash flow and balance sheet along with the explanatory notes and the Board Annual Activity Report.

Statistical Population and Sample

The Statistical Population in this survey includes the companies listed on Tehran stock exchange. The Statistical Sample of this survey has been selected by the systematic elimination method and according to the following conditions.
1 – It should not contain the investing and financial intermediation companies.
2 - The end of their fiscal year should be at the end of Esfand, and the research information needed for them should be available.
3 – It should be listed on the stock exchange from 2008 to 2011.
The sample size became 98 companies with all above constraints.

STATISTICAL RESULTS

The results of descriptive statistics of variables indicated that the transparency rate was about 0.53 in companies with public ownership and about 0.68 for private companies. This index was the same in the area of disclosing the financial data, but the greatest difference belonged to the disclosure of data related to the board and managers' structure. The ratio of return on assets was approximately 13 percent for state companies and 18.5 percent for private companies; moreover, the companies, which had the higher disclosure rate, had higher return ratio. In state companies, the ownership concentration was higher and it was about 7,400 of 10,000 indexes; this index was 4,650 for private companies. In addition, the companies with higher disclosure rate, had lower ownership concentration, and the companies with higher disclosure rate had the higher ratio of nonexecutive members, about 65 percent.

The results of statistical hypothesis test are summarized in the table below:

Table 1- Results of significance coefficients test for the hypotheses

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.344	1.296		2.580	.012		
	Ownership structure	-5.459	2.038	-.276	-2.678	.009	.990	1.010
	Financial performance	-4.239	2.151	-.222	-2.208	.036	.925	1.081
	Board composition	-1.222	1.232	-.105	-.992	.324	.929	1.077

As the table above shows, for the relationship between the earnings management and the transparency variable in corporate ownership structure sig=0.009 which is less than 5%. Thus, there is a significant relationship between the rate of disclosure of ownership structure and the earnings management; and this relationship is established with confidence higher than 0.99. Since the value of sig for the disclosure of financial performance is sig=0.036, its relationship with the earnings management has been approved, but for disclosure of board structure sig=0.324 and is higher than 5%. It can be said that there is no significant relationship between the disclosure of board structure and the earnings management in companies. The index amount T=-2.678 also indicates a significant negative relationship between the disclosure of information about the ownership structure and the earnings management, and the amount of relationship between them is 27%. The number T is equal to 2.151 for the financial performance variable and the amount of relationship between them is 22%.

We have entered all the variables into the model in order to evaluate the effect of controlling and independent variables on the earnings management; we have done it by the help of statistical method "Enter" and through the step by step procedure; the results are described in the following table.

Table 2 – Significance of coefficients in the presence of main and controlling variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.074	1.383		2.223	.029		
	Ownership structure	-5.172	2.137	-.261	-2.421	.018	.888	1.126
	Financial performance	4.322	2.231	.230	2.261	.024	.796	1.256
	Board composition	-1.199	1.250	-.103	-.959	.340	.889	1.125
	Size of corporation	9.607E-16	.000	.014	.123	.903	.813	1.229
	Leverage ratio	.007	.245	.013	1.029	.097	.774	1.292
	Rate of return	1.380	.639	.253	2.160	.034	.750	1.334
	Ownership concentration	-2.046E-5	.000	-.086	-.756	.452	.800	1.251
	State- private	4.057	2.155	-.242	2.369	.043	.805	1.242
	Nonexecutive director	.009	.418	.002	.021	.983	.890	1.123

As the table above shows the amount of significant coefficient in the variables of ownership structure transparency is 0.018, the ratio of return on assets is 0.034, the type of corporate ownership is 0.043, and the transparency in financial performance is equal to 0.024, which is less than 5%, but the significant coefficient is higher than 5% for other variables; it means that there is no significant relationship for the variables of disclosure of board structure, leverage ratio, ownership concentration ratio, and the ratio of nonexecutive board members.

We examined the effect of each of the variables through the step by step model, and the same results were obtained and because two variables of transparency in the structure of ownership and the return on assets ratio and the transparency in the financial performance and the type of ownership had significant coefficient less than 5% in the stage 1 and 2, they were selected in the model and because other variables had significant coefficient higher than 5% they were not included into the model and the model was discontinued in the second step. And finally, the regression model equation can be formulated with four variables of ownership structure and the return ratio, as follows:

(Earnings management) $\hat{y} = 2.938 - 5.24$ (ownership structure) + 1.38 (return on assets ratio) +4.057 (ownership type) +4.322 (financial performance)

DISCUSSION AND CONCLUSION

The results of research indicate that there is a significant negative relationship between the corporate transparency in the field of shareholders' financial performance and ownership structure with the corporate earnings management; and the rate of income manipulation by managers occurs less in companies with higher transparency and disclosure in these two areas, in contrast the less the corporate transparency occurs in these two fields, the more income and earning manipulation will be occurred. These findings are in line with the results of research conducted by Patten and Trompeter, Joe and Kim, Lobo and Zhou, Truman and Titman and Skipper, Nourvash and Hosseini, Bodaghi and Bazzaz-zadeh.

Based on the representation theory, if monitoring the managers' performance and the sense of stockholders' control by managers is more, the occurrence of unethical behavior and moral hazard by managers will be less and this will not be possible for them unless managers engage to smooth financial figures and corporate performance. The corporate ownership structure has fundamental importance; the companies which have the familial ownership structure and have major stockholder, will have the possibility to monitor the managers' performance precisely. The possibility to smooth the financial and functional figures will be less if the stockholders have high distribution; in this case, the differences in their votes will be more, thus they will not be able to monitor the managers' performance.

Besides, in evaluating the effect of other variables, which affected the earning corporate management, the effect of corporate ownership and return on assets was approved and it was positive. Therefore, in the state companies, with lower performance monitoring, the possibility to manipulate the income figures will be high. In addition, the income figures manipulation is cone in order to increase the rate of return on assets; this rate is emphasized by the stockholders and is a criterion for evaluating the managers' performance; thus the managers try to show this ratio with improvement and growth.

This study expects to approve the effect of nonexecutive managers significantly on the reduction of earnings management, but no relationship between them was approved. The nonexecutive board members should monitor the managers' performance more due to their own independence in their position and prevent any income figures manipulation by them. These people cannot have proper performance because they do not have related proficiency in the financial or economic fields or corporate activity. In Iran, these people are generally chosen by the politic process, do not have the relevant knowledge, and are often the board member of several companies at the same time.

Suggestions

1- The Corporate Transparency Rating should be prepared based on the Standard Poor's indexes by the Stock Exchange of Iran in order to indicate the corporate disclosure and transparency position precisely and the investors make better decisions according to them;

2- The amount of earnings management is more and the managers' controlling is less in public companies, so it is recommended revising the Iranian accounting standards;

3- The relationship and role of nonexecutive board on the earnings management is not approved; thus based on these members' improper performance according to their independence, it is recommended revising the choice of nonexecutive board members in Iranian companies based on the regulation of corporate governance.

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