

Investigating the Relation of Independence of Boards of Directors with Earning: Evidence from Listed firms in Tehran Stock Exchange

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Abstract: The purpose of this article is to investigate the relation of companies' board of directors and its composition with annual earnings. The sample of this research is 61 of registered firms in Tehran Stock Exchange which have complete financial information and reports about the composition of their board of directors from 2008 to 2013. The results shows that board of directors with more independent managers have made much more earnings, therefore have direct influence on profit of firms. Thus, we can claim that board of directors is a vital factor for stock exchange firms for being profitable. The result in this research is in line with previous researches in this field. We conclude that firms with more independent managers on their board of directors are more profitable than those with less independent managers on their board of directors.

Key words: Earnings management • Board of directors • Tehran Stock Exchange

INTRODUCTION

Prior research suggests that the degree of earnings management varies significantly across firms and can be explained by firm-specific attributes such as the level of political costs [1]), the existence of an earnings-based bonus plan and the likelihood of debt covenant violation. To date, however, relatively little attention has been paid to the way in which earnings management might depend on the effectiveness of corporate governance mechanisms, which are known to vary significantly across firms [9]. Notable exceptions include [8], who examine the governance characteristics of firms subject to SEC enforcement actions and [3], who examines the link between board composition and financial statement fraud. Both papers document a link between board composition and extreme cases of earnings management. More general evidence on the links between earnings management and corporate governance is provided by [13]. They address the question of whether the propensity for earnings management is lower when management interests and owners' interests are more closely aligned through higher managerial stock ownership. Their results confirm that earnings management is lower for firms with higher

managerial ownership. In this paper we try to see if compositions of board of directors have any effect on earnings.

Literature Review: Much of prior debate regarding board effectiveness has emphasized the specific contribution of outside directors to the boards monitoring duties [12]. Thus, as [10] discusses, to the extent that boards monitor discretion management can exercise over accounting numbers and outside directors contribute to the monitoring process, one might predict a systematic association between management's ability to manipulate accounting numbers and the level of outside director representation. Consistent with this view, policy-makers often have emphasized the role of outside directors in controlling the quality of financial reporting.

Recent research by [8] and [3] has produced significant new insights on the possible links between boards and financial reporting. [8] investigate firms subject to accounting enforcement actions by the SEC for alleged violations of Generally Accepted Accounting Principles (GAAP) leading to the overstatement of reported earnings. They present evidence that governance structure plays an important role in constraining earnings

management and, specifically, that firms charged with overstating their earnings are more likely to have insider-dominated boards of directors.

Boards, Monitoring and Financial Reporting:

The board of directors represents the apex of the control system in large corporations, performing the dual roles of monitoring and ratification [13]. To facilitate effective decision ratification, boards include internal managers with firm-specific decision-making expertise, while to facilitate effective monitoring, boards include outside members who are independent of management. However, opinion on the general ability of boards and outside directors in particular, to effectively monitor management remains divided. On the one hand, proponents of boards as monitors view outside directors as central to the effective resolution of agency problems between managers and shareholders [4]. Under this viewpoint, effective decision control is predicted to be a positive function of the ratio of outside directors to total board membership, with the motivation for monitoring resulting from outside directors' incentives to develop a reputation for effective monitoring in the external labor market. In contrast, other commentators maintain that outside directors perform little or no real monitoring role and do little more than provide contacts and advice for top management [7].

MATERIALS AND METHOD

The aim of this study is to investigate the relation of profit management with the composition of board of directors. Therefore we used Jones model which has been modified by Defond and Jimbalvo. This model is used for estimating the level of change in sale and the level of financial assets.

$$\frac{Acc_u}{AT_{t-1}} = a(1/TA_{t-1}) + b(\Delta Sales_u / TA_{t-1}) + \gamma(PPE / TA_{t-1}) + e_u$$

In this equation, *Acc* is the whole of the non-discretionary assets which is the change of current assets minus changes in current debt minus change in current depreciation? Net change is sale is presented by *CAit-ΔCLit-ΔDEPit* and assets and facilities are presented by Sales. PPE Finally the whole asset of the firm is indicated by TA.

The discretionary assets are residuals of the mentioned equation:

$$DAC_u = Acc_u / TA_{t-1} - a(1/TA_{t-1}) - b(\Delta Sales_u / TA_{t-1}) - \gamma(PPE_u / TA_{t-1})$$

The discretionary which has been obtained from prior equation *ABS-DAS* is our amount for earning management. We use the positive form of this calculations because earning management could be both positive and negative (Defond, 2005). As much this calculation is bigger, is the indicative of more earning management and therefore less quality of profit. We will use as *DAC* independent variable in our model.

$$ABS-DAC_u = c_0 + c_1 DOU_t + c_2 EPS_u + c_3 OUIDIR_u + c_4 LEV_u + c_5 SIZE_u + e_u$$

For this research the information of the firms, return on stocks and controlling variables are gathered from websites and libraries and relative software like Rahavarednovin. The percent of the independent board of directors are calculated by use of repots of Tehran Stock Exchange. Moreover the statistical society we used here is the all firms who are already registered in Tehran Stock Exchange.

In this research regarding the nature of the research and existence of some kind of inconsistency among the firms in Tehran Stock Exchange, the following conditions are assumed for statistical society:

- For homogeneity of our statistical society during our research period, the firms must have been registered in Tehran Stock Exchange prior than year 2002.
- For sake of boosting the comparability, the financial year of the firms must be ended at the end of the year.
- During the financial years, firms must not had a change in their activities or their financial year.
- With regard to need to market value of the return on shareholders for analyzing our dependent value, the shares of each company must have been traded at least once in the last month of the year.
- The firm must not be any kind of investment firms, dealer, holding, bank or leasing.

The method of sampling was judgmental and after extraction of the information, the needed procedures are designed in excel and after calculating the variables, those variables will be processed with use of SPSS software.

Moreover, in this research we are trying to investigate the amount of relation between dependent and independent variables with use of statistical models. After determining the coefficients, for testing our hypotheses, we used t-student analysis.

RESULTS

The descriptive statistics of our research is presented in table 1. As it is shown the average of the shared of investigated firms is 5351 Riel and the average EPS for those firms is 979 Riel.

Moreover, it seems that Iranian firms are using leverage a lot. This is because the average of debts for firms is 65 percent of their assets and the value of the firms is 5.73. Finally, all of the firms are considered to have lots of opportunities in future due to market value of their shares which is considerably higher than their nominal value.

The sample is composed of 61 firms in Tehran Stock Exchange. The financial year of the taken sample is 29st day of the final month of the year. EPS is the amount of revenue for each firm for year T. OUTDIR is the percent of the independent variables which are those directors who

have no trade relationship with firm and the representative of the firm. LEV is the financial leverage which is the amount of debt to amount of assets. The value of the firms is the logarithm of the whole of its assets at the end of the financial year. ABS-DAC is the amount of non-discretionary value and is the residual amount of the Jones model.

The final test of our research is the estimation of the model and to investigate the relation of the composite of the board of directors with non-discretionary assets. The results are presented in the table 2. The results show that the firms with more than average of independent directors have more than average earnings with higher quality. These results are in line with prior results which have indicated that more independence in board of directors will eventually result in more profit and higher quality. Although, these results should be used by analyst with caution. Because the size of the firms, according to results have impact on non-discretionary assets. The coefficient of size is positive which indicates that bigger firms with use of more assets and sharper rate of growth are prone to boost their discretionary assets with use of increase in profit.

Table 1:

Variable	Average	Standard deviation	First quadrant	Median	Third quadrant		
DOUT		4.13	1.79		2.04	4.52	5.35
EPS		979	1024		304.5	700	1254.2
OUTDIR		0.55	0.13		0.4	0.6	0.8
LEV		0.65	0.18		0.53	0.67	0.77
SIZE		5.75	0.58		5.35	5.66	5.98
ABS-DAC		0.67	7.42		0.03	0.09	0.22

Table 2:

R2-Adj	F-Stat	SIZE	LEV	OUTDIR	EPS	DOUT
-0.007	0.528	0.155	-0.535	0.023	0.00	1.68
		-0.227	0.244	0.771	-1.33	0.375

Table 3:

Significant	F	Average of exponents	Degree of freedom	Sum of exponents	Model	
0.045	0.528	29.336	5	146.679	Regression	1
		55.510	360	19983.553	Error	
			365	2013.233	Sum	

Table 4:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.085 ^a	.007	-.007	7.45049	1.995

a. Predictors: (Constant), size, oudir, eps, dout, lev

b. Dependent Variable: ABS-DAC

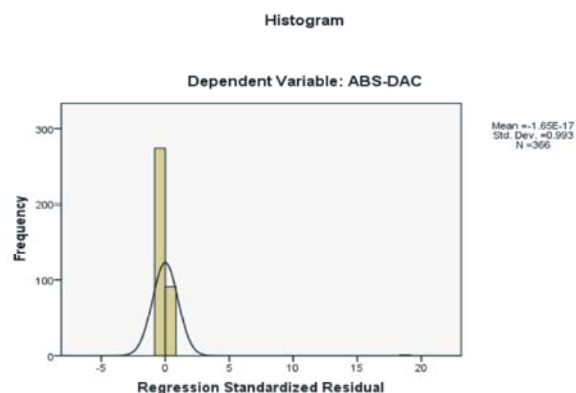


Fig. 1:

All in all, we can say that more independent board of directors will have higher quality profit. Moreover, firms with more assets will have more earnings. The sign of the resulted coefficient in this research is in line with the sign of coefficient of the prior studies [4].

T-students are significant with level of 1%, 5% and 10%. P is the price of the share of each firm at the end of the financial year. EPS is the revenue of shares of the firm I for year T. OUTDIR is the amount of independent directors. LEV is leverage of the firm which is the total amount of debt to total amount of assets. The size of firm is the logarithm of the whole assets of the firm at the end of the year.

According to table 3, for test of significance in 95% level, the amount of F is calculated by regression equation. For each of the equations with F more than 2, the null hypothesis will be rejected and therefore, the regression will be significant.

By use of Dorbin-Watson test we have tested the probability of existence of auto-correlation in residuals. Therefore, the hypotheses will be as below:

H0: in residuals there is auto-correlation

H1: in residuals there is no auto-correlation

If the amount of statistics is between 1.5 to 2.5, the null hypothesis will be rejected.

According to table, the amount of Dorbin-watson is 1.995, therefore, H0 will be rejected and we can conclude that there is no auto-regression in residuals.

As we can see in the diagram below, the distribution of the errors are almost normal and the standard deviation of the distribution is 0.993, which is near 1 and the moving average of it is almost 0.

CONCLUSION

The results showed us our coefficient is -.1605. this means that firms with more independent managers had earnings above average. This result is proved in the prior sections that more independent managers will eventually lead to more independent board of directors and the quality of the information will become higher. In sum we can say that the board which has more independence will have higher quality in earnings. Moreover, firms with more assets will have more earnings. The sign of the extracted coefficients in this research is in line with prior researches in this field.

The composition of the board of directors and its effect of the accounting earning is the topic of several worldwide researches in these years. Most researchers are believe that more independent board of directors will produce better reports because they are less influenced by the executive managers and therefore can monitor their business better.

The aim of this research is to investigate who the annual earnings of the stocks registered in Tehran Stock Exchange is influenced by the composition of the board of directors. The sample of this research was 61 registered firms in Tehran Stock Exchange. The results show that those firms with more independent board of directors have more qualified earnings.

There are other issues which should be considered. First of all the effect of accounting monitoring should be considered on management of earning. The future research should consider the role of executive management and non-executive management on the earning management. Moreover, the role and effect of accounting standards should also be considered as leading effective factors on earning management and should be investigated in more depth.

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