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A study on the effect of board of directors on the rate of corporate transparency

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A B S T R A C T

The main target of this study is to consider the effect of the combination of board of directors on the corporate transparency in some companies among selected ones in Tehran Stock Exchange Market over the period of 2007- 2010. In this research, the combination of board of directors is selected among some factors of corporate transparency such as structure of ownership and the rights of owners, financial information and statistics and structure and combination of board of directors and managers as a sub-indicator for corporate governance. Linear regression statistical method is used to test hypotheses of study. The size of α is considered as 5% and hypotheses are accepted or rejected by means of Durbin-Watson and Clemogrov-Smirnov tests and by comparing p-value with α. At last, by means of forward regression method, the effect of control variables is considered over each hypothesis.The results show that the members of board of directors have no effect on partnership transparency, but effect on financial data and information and structure and combination of board of directors.

1. Introduction

Achievement of long-term economical prosperity requires optimal equipment and allocation of resources in the national level. Such this situation will not be provided without assistance of financial markets especially an effective and vast capital market. Appropriate function of capital market helps increase efficiency, investment and growth (Chiang, 2005) and it also assists to increase economical growth at least in long-term by decreasing reserves of capitals in cash and by increasing growth rate of physical capitals (Bencivenga & Smith, 1991). For this reason, more transparency in data (as one of the important factors in efficiency of market) provides more performance of company. Data representation in an appropriate, comprehensive and complete way in annual reports of companies will influence decision-making of many people in the society, especially investors in capital market (Chiang, 2005). Corporate governance is the solution of these problems as one of the most important concepts during the last two decades. Through ownership of stocks, corporate governance had a great effect to control methods over the companies. In this way, owners entrusted management of their

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companies to directors and stock exchange markets were formed. Stock exchange market is one of the tools for optimal allocation of resources. Therefore, any problem in such markets, is not merely an economical problem, but turns to a social problem and threatens general advantages of society. Strategy of corporate management systems is to consider methods to direct a company and includes some processes to lead the efforts of company to create value for stockholders and other beneficiaries (Hasan, A., & Butt, 2009). In this manner, strategies of corporate management system to lead and control companies will be identified and their structure will define responsibility extent and the rights of board of directors, managers, stockholders and other beneficiaries (He & Sommer, 2010).

1.2 Hypotheses of research

Major and minor hypotheses will be defined according to targets and questions of research as follows,

1) If the ratio of non-bound members is high, corporate transparency will be more about structure of ownership and the rights of owners.

2) If the ratio of non-bound members is high, corporate transparency will be more about financial and functional data and statistics.

3) If the ratio of non-bound members is high, corporate transparency will be more about structure and combination of board of directors and managers.

Managers of companies are supervisors of stockholders and have incomplete data about function of company. Therefore, information has an undeniable role to increase problems of supervision. Appropriate transparency and disclosure on information as an inseparable part of management system of companies will decrease asymmetry of information. The main reason for voluntary disclosure of information and transparency is that these two are the main foundations to save advantages of stockholders. The approaches of complete disclosure beside transparency in financial reporting are able to provide appropriate conditions and to increase the confidence and protection of investors (Madhani, 2009). In general, the nature of transparent reporting in financial texts is to achieve related and undeniable information about periodical function, financial success, investment opportunities, corporate management and the risk of subsidiaries (Bushman & Smith, 2003). However, in a deep observation transparency can be divided into three general groups:

a) Definitions based on data beneficiaries,
b) Definitions based on responsibility,
c) Transparency based on laws (Taheri, 2010).

Three major models are accepted to assess transparency. Most of the researches have enjoyed these three models. The models include indicator of "Center of International Financial Analysis and Research" CIFAR Indicator, Model of "Bushman, Piotroski and Smith" and Model of "Standards and Poor's" (S&P). Cooperating with universities in different countries around the world, organization of standards and Poor's have investigated about assessment of information quality and transparency of companies. The organization ranks great companies accepted in international stock markets annually according to its own criterion. This model includes 98 criteria in three fields designed based on reporting standards of member countries (OECD).

To have a comprehensive and complete description about corporate governance, it is necessary to describe completion trend of this concept. Corporate governance lets minor stockholders have transparent and reliable information about financial situation, function and value of company and protect their properties against abuses of executive managers and major stockholders (Hsiu, 2006). In a limited viewpoint, corporate governance is described in relation with companies and stockholders and also as a network of relations in a more comprehensive meaning. It includes all beneficiaries such as staff, customers, people and society (Hassas Yeganeh, 2006). Various mechanisms of corporate governance are performed in different companies to achieve all targets of responsibility, transparency, justice and rights of beneficiaries. Structure of board of directors is one of these mechanisms to consider. The position of board of directors, as leading character to control and to guide executive managers to save ownership advantages of stockholders, is very important. Therefore, it is obvious that success key of a company is bond to appropriate leadership (Hassas Yeganeh, 2006). Consideration of function of board of director about their legal duties against stockholders is one of the rights of stockholders. The power of board of directors should not be a factor to take dangerous and incorrect decisions and to damage advantages of stockholders (Hassas Yeganeh & Moayyeri, 2008).

2. An overview on previous studies

Ghanbari (2007) found in his research that only structural stockholders interior accounting may affect the function of company. Sivar Macnishnan and Carol Yu (2008) considered the relationship between corporate governance and quality of profits and concluded that without ability of corporate governance, the quality of reporting/profit is more for those companies exceeded their competitors during past times. Another study reveals that there was a positive and meaningful relationship between ownership percentage of family members and structural ownership with quality of profit, but there was no meaningful relationship between independent members of board of directors with quality of profit. Imam and Malik (2007) in their researches concluded that corporate ownership had a positive and meaningful relation on the function of company, and concentrated management ownership had a negative and meaningful relationship on stock dividend. Ditmar and Smith (2006) considered two criteria of corporate governance and its relationship with company market value and understood that in companies with weak governance, any change in cash equal with 1 dollar makes a change in market value equal with 0.42 to 0.88 dollar. This ratio in companies with strong governance is double. Hisu (2006) concluded in his research that there was a positive and meaningful relationship between perception of investors in stock market about transparent dimensions of financial information and their behavior. Among these dimensions, transparent structure of ownership is the most effective one. Lang (2004) in another research considered the effect of experienced company governance on financial function of company in Malaysia. Some researchers studied on the relationship between quality of company governance and financial function. The finding of some of these studies showed that improved quality of company governance had a positive relationship on financial function of company. Demstez and Len (1985), Hermalin and Vizback (1991) considered the effect of ownership structure on function of company. The results of their researches show that there is a positive and important relationship between ownership structure and function of company. Himlberg et al. (1999) found no relationship between unbound members and function. While Braun and Killer (2004) and Miguel et al. (2005) concluded in their researches that there was a positive relationship between unbound managers and function.

3. The proposed model

This study has an applied target and is executable based on descriptive-analytical methods. Methods and tools to gather data are provided by means of essays and books, printed in foreign and Iranian magazines. Independent and dependant variables are extracted according to field study methods and by referring to financial minutes of companies of statistical sample, activity reports of board of directors to annual general assembly, website of Stock Exchange Organization, Library of Stock Exchange Organization and Tadbir-Pardaz and Dena software. Our statistical sample includes those companies, which are accepted in Stock Market of Tehran and are regulated based on following restrictions:

1- Not included in investment companies and financial brokers.
2- The end of their fiscal year is March 19.

Therefore, simple and multiple regression method are used to test hypotheses, and step-by-step method by means of SPSS software is used to consider the effect of variables. Corporate transparency is a dependent variable for this study, according to which accepted companies in Tehran Stock Exchange are being considered. Standard and Poor's well known model is used in this paper including following triple reporting criteria:

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

TSD: Total ranking of transparency and disclosure, J: Measurement range of transparency, K: number of criterion, TOTS: maximum applicable credit, S_{jk}: allocated credit to each criterion

Corporate governance is independent variable. The variables of this paper are ratio of unbound members. Control variables of this research are size of company, leverage ratio, profitability of company and type of ownership. Table 1 presents regression variance analysis to examine certainty of any linear relationship. Thus, statistical hypotheses are gathered. This is the procedure for hypothesis 1 and for other hypotheses:

H_0:r=0 There is no linear relationship between ratio of unbound members and structure of ownership (regression model is not linear)

H_1:r≠0 There is linear relationship between ratio of unbound members and structure of ownership (regression model is linear)

Table 1
Regression meaningfulness test

	Sig.	F	Durbin-Watson	R^2	$\bar{R}^2$	Linearity hypothesis
First hypothesis	.751[a]	.101	1.948	.001	-.009	Hypothesis is rejected
Second hypothesis	.000[a]	16.150	2.017	.144	.135	Hypothesis is accepted
Third hypothesis	.045[a]	4.123	1.872	.041	.031	Hypothesis is accepted

Regression analysis of ratio of unbound members with structure of ownership is $\bar{R}^2$=0.031 and multiple definition coefficient R^2 is 0.001. Watson-Durbin statistics is 1.948, which means there is no autocorrelation between residuals. Therefore, data enjoy an appropriate level of independency. Sig is 0.751, which is greater than 5%. It means that linearity of regression model of hypothesis is not confirmed in comparison with other unbound members with ownership structure. The result of hypotheses 2 and 3 is reported in Table 2. This test defines meaningfulness of coefficients and distinguishes direction of effects on dependent variables. When meaningfulness of coefficients are approved, calculated coefficients in Beta column will define direction and effect rate of independent variable on dependent variable. Statistical hypotheses will be defined as follow,

H_0: ß=0 (ratio of unbound members has no effect on ownership structure)

H_1: ß≠0 (ratio of unbound members has effect on ownership structure)

For hypotheses 2 and 3, we will have:

Table 2
Coefficient meaningfulness test

		Unstandardized coefficients		Standardized		
	Model	B	Std. Error	coefficients (Beta)	T	Sig
First hypothesis	Constant	.526	.047	-.032	11.162	.000
	X1	-.022	.070		-.318	.751
Second hypothesis	Constant	.459	.027	.379	17.012	.000
	X1	.160	.040		4.019	.000
Third hypothesis	Constant	.297	.021	-.203	13.995	.000
	X1	-.064	.031		-2.031	.045

In column B, constant amounts and coefficients of independent variables (slope of line) are represented compared with unbound members of regression equation. Therefore, the model anticipates ownership structure (dependent variable) based on following equation. Due to negative sign of line slope, the relationship between these two variables is reversed. Only in hypothesis 1 and for the ratio of unbound members, sig=0.751 and is more than 5%; so, H_0 is confirmed and H_1 is rejected. Sig is less than 5% for other hypotheses; so, H_0 is rejected and H_1 is accepted.

Ownership structure=ŷ=0.526-0.022 (ratio of unbound members)

Financial function=ŷ=0.459+0.16 (ratio of unbound members)

Management structure=ŷ=0.297-0.64 (ratio of unbound members)

We now consider regression model by inserting control variables with main independent variable of ratio of unbound members

3.1 Ownership structure with main variables (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) y1

Forwarding model is used in this research to consider control variables. It is seen that a brief combination of multiple linear models including 5 independent variables are used (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) and R=0.296 and (R^2=0.088). It means that 0.088 of dispersion will justify ownership structure and only ownership control variable affects on the model. Other variables make no improvement in the model.

Table 4
Meaningfulness table of coefficients with forward method for y1

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.	Collinearity statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	.481	.016		30.46	.000		
C4 ownership	.074	.024	.296	3.040	.003	1.000	1.000

Meaningfulness level for ownership variable is less than 5% in table of regression coefficients because this is a criterion to select variables for the model. In next stages, if Sig coefficient of a variable is greater than 5%, the variable will not be inserted into the model. It is seen that model is stopped in the first stage, which means other independent variables do not have great effects to anticipate ownership structure and at last, the equation of regression model can be generated as following and by only variable of ownership type:

Table 5
Meaningfulness table of coefficients according to forwarding method for y1 in step 2

Model	Beta 1n	T	Sig.	Partial correlation	Collinearity statistics		
					Tolerance	VIF	Minimum tolerance
Ratio of unbound members in board of directors	-.026[a]	-.261	.795	-.027	.999	1.001	.999
Firm size and total assets	-.099[a]	-1.001	.319	-.102	.975	1.025	.975
Ratio of dents	.186[a]	1.931	.056	.194	.992	1.008	.992
Profit and indicator of properties	-.067[a]	-.675	.502	-.069	.970	1.031	.970

Ownership structure=ŷ=0.481+0.074

In considering those variables where there are not in the model, "beta in" column should be regarded. The table shows that "ownership type" independent variable there is not in stage 1 and is selected as an effective variable in model 1. Coefficients in "beta in" column indicate that if a variable is inserted into the model, it will have a small effect on the model. If meaningfulness level of a variable is less than 5%, we will understand in model 2 (step 2) that meaningfulness level of other variables is more than 5% and they will have a small effect on the model. Columns "t" and "sig" indicate that if a variable is inserted into the model, there should be t>2 and sig<5% to be selected as an effective variable in next stage. According to two mentioned columns, none of variables is allowed to be inserted to the model and will not be inserted in next stages. Related information to other forward regression tables are represented in following table:

Table 6

Meaningfulness table of coefficients according to forward method for y1, y2 and y3

Forward regression	Main and control variables	ß coefficient	Type action
Considering ownership structure with main variables (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) y1	Ratio of members	---	---
	Size of company	---	---
	Ratio of debts	---	---
	Profitability indicator	---	---
	Ownership type	0.296	+
Considering financial function with main variables (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) y2	Ratio of members	0.388	+
	Size of company	0.265	+
	Ratio of debts	---	---
	Profitability indicator	---	---
	Ownership type	---	---
Considering management structure with main variables (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) y3	Ratio of members	-0.203	-
	Size of company	---	---
	Ratio of debts	---	---
	Profitability indicator	---	---
	Ownership type	---	---

Ownership structure=ŷ=0.481+0.074 (ownership type)

Financial function=ŷ=0.459+0.164 (ratio of unbound members)+0.00021 (size of companies)

Management structure=ŷ=0.297-0.064 (ratio of unbound members)

In column B of above table, fixed amount and coefficient (line slope) for independent variables in regression equation are represented. So, for example for y3 model, management structure (dependent variable) is anticipated as following:

Management structure=ŷ=-0.203 (ratio of unbound members)

4. Conclusion and Suggestions

The achievement of this research indicates that for hypothesis 1, column Sig in table of Coefficient is completely obvious that Sig is equal with 0.751. Therefore, this variable is not meaningful and hypothesis 1 is rejected and ratio of unbound members has no meaningful effect on corporate transparency about ownership structure and rights of owners. Note that Demstez and Lan (1985), Mark et al. (1998), Hermalin and Vizbek (1991) considered the effect of ownership structure on function of company. They found that there was a positive and important relationship between ownership structure and function of company. According to Hisu (2006), ownership structure transparency has the most effect among all aspects of transparency.

In this study, the results of hypotheses 2 and 3 have been confirmed. It means higher ratio of unbound members will increase transparency of company on financial and functional affairs. There are also different studies in agreement with our findings (Randi & Jensen, 2003; Brawn & Killer, 2004; Miguel et al., 2005; Lang, 2004; Imam & Malik, 2007). However, there are some studies, which did not confirm our findings (e.g. Howard & Palia, 1999). In fact, the findings of this research show that customers will trust on financial minutes of companies if corporate governance and transparency is performed, completely.

This research uses forward model for control variables. Five independent variables (ratio of members, size of company, ratio of debts, profitability indicator, ownership type) are used to anticipate ownership structure, financial and functional records, structure and combination of board of directors and only ownership control variable for structure of ownership, ratio of unbound members and size of companies are effective for financial function and ratio of unbound members for combination of board of directors.

As future research, it is possible to repeat this study for various industries in stock market in order to control the effect of industry and to rank companies into three groups of small, average and big companies to delete company size effect. We may also reconsider this study in longer time horizon and with greater sample in order to increase validity of results.

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