The Effect of Board Size and Managing Director Duality on the Capital Structure of Listed Companies in Tehran Stock Exchange

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Abstract: The purpose of this essay is to study the effect of board size and managing director duality on the capital structure of listed companies in Tehran Stock Exchange. Due to this, a sample has been studied including 700 year-corporation among from adopted corporations in Tehran stock exchange in the form of 8 industries during 2007-2011. The result of this research shows that there is no significant relationship between board size and capital structure. Also, there is a positive and significant relationship between responsibility duality of managing director and capital structure. Furthermore, the result of controlling variables test in research suggests that there is a positive and significant relationship between firm size and capital structure.

Key words: Board size • Managing director duality • Capital structure and Tehran Stock Exchange

INTRODUCTION

It is possible that managers take some decisions that are towards their own profits and contrasts with stockholders profits, this is resulted from ownership and management separation [1]. We call this contrasting profits as agency theory.

Managers attempt to maximize their profits but the equities of other stockholders may not be considered here. There should be enough control in order to rise the reliability of exercising the responsibility of economical corporations against beneficiaries.

At this part, controlling and caring need suitable mechanisms. Planning and appropriate governing in corporations and economical corporations and corporate governance are instances of those mechanisms [2].

Results of researches suggested firms that are handled better have higher order value. Nevertheless, regarding the structure of corporate governance in different countries, the relationship of corporate governance and corporation value relates to social and economical situations and law of that country [3].

Board size is one of the main issues in corporate governance. Board size refers to the number of attended member in board meeting. As the board size rises, controlling of board meeting run into some problems and also there will be different ideas due to more members. These ideas make some policies these policies can be a solution and encourage the corporation towards its goal.

Responsibility duality of managing director is the other main issue in corporate governance. According to the agency theory, if the managing director and the board chairman be one, (managing director duality) the supervision process will be run into some serious problems. In other words the corporations managing director has the role of board chairman we call this matter as board. This matter damages the board independence from the point of view of agency theory.

E lecting an appropriate capital structure is one of the main issues in corporations and this matter is possible by applying proper decisions of manager. The capital structure and its optimally combination and in other words financing from several sources is a discussion that for the first time was suggested by modigliani and miller an 1958 and from that time it is the basis of several financial researches and often these researches lead to develop new theories. Regarding to discussed matters, the purpose of this research is to study the effect of managing director duality and the board size on the capital structure of listed companies in Tehran Stock Exchange.

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Research Literature: Heng and Azrbaijani [4] studied the relationship between capital structure and board features in 75 adopted corporations in koalalampour stock exchange during 2005-2009. The results suggested that there is a negative and significant relationship between the board size and the capital structure. Also this relationship positive and significant between managing director duality and capital structure.

Olobukuoold Rant [5] studied the effect of board size and managing director duality over adopted corporations capital structure in nigeria’s stock exchange.

The sample of this research consists of corporations during 2006-2011. The results suggested that there is a negative and significant relationship between the board size and the capital structure and also there is a positive and significant relationship between the capital structure and managing director duality.

Bokpin and Arko [6] studied the effect of adopted corporations ownership structure and capital structure in Ghana stock exchange. The sample of the research, included 138 corporation-year during 2002-2007. Results suggest that there is no significant relationship between managing director duality and capital structure.

Also saad Finding [7] suggested that there is no significant relationship between managing director duality and capital structure.

Fosberg [8] noticed that there is a negative and significant relationship between managing director duality and corporations liabilities rate. but on the other hand, Abor [9] represented that there is a positive and significant relationship between corporations liability ratio and managing director duality.

Sheikh and Wang [10] studied the effect of corporate governance on the capital structure of 155 adopted corporations in Karachi Stock Exchange during 2004-2008. Results suggest that there is a positive and significant relationship among board size, board independence, ownership centralization and corporation size with liability ratios. Also the results suggest that there is no significant relationship among managing director of corporation, stock percentage belongs to board members and managing director with capital structure.

Nazir and Aslam [11] studied the effect of managing director duality on the capital structure in Pakistani corporations. The sample of the research included 269 adopted corporations in karachi stock exchange during 2004-2009. The results suggest that there is a positive and significant relationship between managing director and capital structure.

Research Hypotheses: There are hypotheses as follows in order to examine the effect of board size and responsibility duality of managing director on the capital structure of listed companies in Tehran Stock Exchange.

First Hypothesis:

\[ H_1: \text{There is a significant relationship between board size and capital structure.} \]

Second Hypothesis:

\[ H_2: \text{There is a negative relationship between responsibility duality of managing director and capital structure.} \]

Research Method

Population and Sample: All the adopted corporations in Tehran stock exchange compose the population of the research during 2007-2011.

A Sample:

- They should be adopted in stock exchange Before 2007.
- Activities of corporations be productive, due to the homogeneity of data.
- It is necessary that the termination of fiscal year leads to march 20, in order for the date to be comparable.
- They should have no fiscal period change during the studying period.

This sample is selected by elimination procedure (purposeful) in such a way that the whole member corporations in population had the above-mentioned conditions and are taken into account in optional sample. Finally, 140 are selected as samples and for data gathering among from those corporations, the research data are of historical and read ones that are gathered from corporations financial statements.

Data Analysis Methods and Hypotheses Testing:

The purpose of the research is of applied and on the basis of nature it is descriptive. it is main purpose is to specify the existence, amount and type of relationship between variables. The hypotheses testing is done through applying combined data and multivariable regression.
Table 1: Calculation procedure of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Calculation procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital structure</td>
<td>It is calculated by dividing book value company’s liabilities into book value of total assets</td>
</tr>
<tr>
<td>Board of director size</td>
<td>It is the number of company’s board member</td>
</tr>
<tr>
<td>Managing director duality</td>
<td>If managing director is also the chairman of board, we use artificial variable 1, otherwise we use artificial variable zero</td>
</tr>
<tr>
<td>Firm size</td>
<td>Company’s total assets are calculated through natural logarithm.</td>
</tr>
</tbody>
</table>

Table 2: Descriptive statistic of research

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>700</td>
<td>0.00</td>
<td>2.21</td>
<td>0.6391</td>
<td>0.2059</td>
</tr>
<tr>
<td>BS</td>
<td>700</td>
<td>3.00</td>
<td>7.00</td>
<td>5.018</td>
<td>0.2743</td>
</tr>
<tr>
<td>DUAL</td>
<td>700</td>
<td>0.00</td>
<td>1.00</td>
<td>0.1569</td>
<td>0.3639</td>
</tr>
<tr>
<td>FS</td>
<td>700</td>
<td>4.25</td>
<td>7.96</td>
<td>5.6055</td>
<td>0.5774</td>
</tr>
</tbody>
</table>

Fisher and F student models are used to test the significance of estimate coefficients of independent variables. Regression T- statistic is used to determine the general proficiency of regression model and also the test is used to explain dependent variable changes by variables which are independent from $R^2$. Also, for the absence of self-correlation between the model of error and dependent variable, we use Durbin-watson (DW) test.

Research Functional Variable and Models: The following model is used to test hypotheses in the present research. The calculation procedure of each variables is represented in Table 1.

$$CS_{it} = a + \beta_1 BS_{it} + \beta_2 DUAL_{it} + \beta_3 FS_{it} + \epsilon_{it}$$

- $CS_{it}$ = The capital structure of i corporation in t year
- $BS_{it}$ = The board of director size of i corporation in t year
- $DUAL_{it}$ = Responsibility duality of managing director of i corporation in t year
- $FS_{it}$ = I corporation size in t year
- $\epsilon_{it}$ = Model’s remained part for i corporation in t year
- $a$, $\beta_1$, $\beta_2$, $\beta_3$: The fixed coefficient (width to the origin) and the controlled and independent variables coefficients.

Research Findings

Descriptive Statistics: Descriptive statistics of dependent variable, independent and controlling variables are represented in Table (2). As you see, the mean of capital structure (CS) is 0.6391 and the number of board size (BS) is 3-7 among the studying corporations, also the least standard deviation is 0.2059 belongs to capital structure (CS) and the most standard deviation is 0.5774 belongs to firm size (BS).

Correlation Analysis: The results of pearson correlation coefficient test is represented in Table (3). The results suggest that there is no significant correlation between board size (BS) and capital structure (CS) variables. Also, there is a positive and significant correlation between capital structure(CS) and managing director duality (DUAL) at 1% level. There is a positive and significant correlation between capital structur (CS) and controlling variable of the firm size at 1% level.

Results of Hypotheses Testing: The results of hypotheses testing is represented in Table (4). As you see, the amount of F statistic equals to 8.232 and its significance level is 0.000 that it states general adequacy of regression model in research.

$R^2$ shows that controlling and independent variables could explain 16.5% of capital structure (dependent variable) and the amount of Durbin-watson equals to 0.287, its normal is 0-4.

The first hypothesis of the research test the relationship of board size(BS) and capital structure(CS). The results suggest that there is no significant relationship between the number of board member in corporations and capital structure. So the first hypothesis is rejected.

In the second hypothesis, we study the relationship between function duality of the managing director (DUAL) and capital structure(CS). The results show that there is a positive relationship at 1% level between managing director duality and capital structure. So, the second hypothesis is accepted. The results of controlling variable testing suggest that there is a positive and significant relationship at 1% level between the firm size(FS) and the capital structure(CS).
The research has studied the effect of board size and responsibility duality of managing director on firm’s capital structure, it is done on the basis of a sample consisting 700 year-firm among from accepted corporations are selected among from 12 industries. In this research, board size and responsibility duality of managing director are independent variable also firm size is controlling variable in the research. The results of hypotheses testing suggest that there is no significant relationship between board size and capital structure and it also suggest that the number of members in board has no effect on the market value of corporations in iran’s capital market committed or uncommitted. The results are in disharmony with the results of Heng and Azrbaijani [4], Olubukunola Ranti [5], Arbor [9], Nazir and Aslam [10], but it is inconsistent with results of Bokpinn and Arko [6], Saad [7], Fosberg [4] and Sheikh and Wang [10].

**CONCLUSION**

The results are in harmony with results of Heng and Azrbaijani [4], Olubukunola Ranti [5], Arbor [9], Nazir and Aslam [10].

**REFERENCES**


