

The Evaluation of Corporate Governance Monitoring Mechanisms on Capital Structure in Tehran Stock Exchange

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Abstract

The aim of this study is to evaluate corporate governance monitoring mechanisms (board of direction size, institutional ownership and ownership concentration) on capital structure in Tehran Stock Exchange (TSE). To test the research hypotheses, 90 companies from manufacturing industries had been selected through random sampling during 2007 to 2009. For analyzing and testing hypotheses, two regression models and panel data method were used. Research results show that there is a significant relationship between institutional ownership and leverage but the other variables don't have relationship with capital structure.

Keyword: corporate governance, capital structure, board of direction size, institutional ownership, ownership concentration

1-Introduction

Corporate governance topics for the first time were introduced by Berl and Means. The Cadbury Committee defines corporate governance as a system which guides and controls corporations. Corporate governance is one of the important factors in improving efficacy of economic. It can also be effective on the development of capital markets and optimal allocation of resources (Maher and Anderson, 1999). Nowadays corporate governance is appropriate for capital providers to gain suitable return (Spance ,2005). Corporate governance mechanisms are tools for reducing agency costs. These tools can reduce the costs of two types of conflicts. The first group is the costs which are created from the conflict of interests between owners and managers. The second one is the costs due to the conflict between majority and minority shareholders (Shleifer and Vishny ,1997). In general, these mechanisms supervise the business process and activities and promote the level of accountability and achieving other goals.

Some major mechanisms of corporate governance can refer to institutional investors, ownership concentration and the size of board of direction. This study investigates the effect of corporate governance monitoring mechanisms on the companies' capital structure. Regarding this argument, the aim of this research is the Evaluation of corporate governance monitoring mechanisms on capital structure in Tehran Stock Exchange of companies listed on Tehran Stock Exchange.

For testing the research hypotheses, financial statements' data from 90 companies has been used. For analyzing and testing hypotheses, two regression models and panel data method were used; because it is very suitable technique for expansion estimation methods and provides theoretical results. So researchers would be able to use time series and cross section data for verifying issues which the study of them is not possible in only sectional and time series environment (Moalemi, 2001). The rest of this paper is organized as follows: section 2 reviews theoretical framework and relevant prior studies while section 3 describes the methodology and section 4 reports the result and conclusion.

2. Literature Review

2.1. Theory and Framework

In an overall look ,corporate governance includes the legal arrangements, cultural and institutional , that it determines corporate performance .Elements that are present in this scene include, shareholders and their ownership structure , board of direction members and their composition , The company management is directed by the director or high executive director and other beneficiaries. Other beneficiaries could impact the company's trend. (Selman and Selman,1984) Researches in this context show that corporate governance mechanisms affect on capital structure (Al-Najjar and Hussainy , 2009:Driffield and cooperatins ,2007:Larooka:2007,Do and Diya:2005, Van and cooperations 2002:Gu1999:grachli1999) Board of direction is one of these mechanisms .Members of the board of direction and company management are responsible management activities and strategic decisions including capital structure combination (Al-Najjar and Hussainy,2009,Abour and Bipe2005,Du and Dai 2005,Wan and Cooperations2002,Berger and Cooperations1997).

Previous studies on the effect ownership concentration as another mechanism of corporate governance on leverage, Capital structure, show different results such as Positive and negative and neural, However the main evidence show ownership concentration have positive effects Leverage (Guo et al, 2010,Anderson and Cooperations2003,Grossman and Hart 1986).

In the one hand level of leverage is high in companies with high ownership; because the controlling shareholder are always looking for safeguarding their right in the company and avoid the company ownership by others. Also, financing through the debt can not only be a good way for limiting managers, but also it overcomes the risk of company ownership. So companies which have high ownership concentration may use greater debt in their capital structure. On the other hand, managers prefer to use equity securities for financing in company, because they tend to avoid pressure from interest payments. (Guo & et al,2010) Institutional investors are another mechanism of corporate governance mechanisms that can effectively supervise the company management because they have great influence on company management and are able to coordinate the shareholders interests. Institutional investors are large investors such as banks, insurance companies and investment companies (Boush 1998).

2.2. Economic Environment in Iran

Tehran stock exchange (TSE) was founded in 1967. In the first year, only six companies were in the TSE list. In 1989 during with the revitalization of the private sector and privatization of the state-owned enterprises, a new economic program began to develop the promotion of private sector activities. This coincided with the time that the first five-year national development plan in the country was at the initial stage of designing. In fact, the TSE has grown as one of the most important executive mechanism for promoting the national economy. This aimed at the environment facilitating contribution of the private sector in productive programs actively, transferring some state duties to the private sector and mobilizing private savings into investment programs. Since then the stock exchange market has grown continuously till today. In recent years, the TSE has evolved into an exciting and growing marketplace for many investors. Now there are more than 430 companies in the TSE investors' trade-in securities hall. The new Capital Market Law was passed in November 2005, forty years since the establishment of the TSE. Under the new law, the TSE would be restructured and incorporated in the private investment. The supervision and operation of the security market is to be separated. Under the new Act, the Securities & Exchange Council is expected at the highest authority level and the responsible for all exchange relevant policies, strategies, and supervision of the market. The Minister of Economy & Finance is appointed at the position of the Chairman of the Council.

The authorities in the market have been placed in the Securities and Exchange Organization, governed by the Board of Directors, with general responsibilities for administration and supervision. The Board of Directors is appointed by the Securities and Exchange Council. In the new organization, the stock Exchange, OTC markets and commodity exchange operate as self-regulatory institutions. The TSE has been opened to non-Iranian equity owners, with the exception of oil and gas companies that in Iran the government has a monopoly control on national companies. No tax is levied on capital gains. There is a 22.5% tax levied on earnings at the source. This means that the shareholders are exempted from dividend tax which is calculated and paid by the companies in advance. The new by-law for Foreign Portfolio Investment (FPI) was approved by the government in June 2005. Under this by-law, for the first time in Iran, foreign investors can participate in the TSE. The interest that is earned from the market exchange is exempted from taxes for both the Iranian and foreigner investors. Such incentive policies have contributed significantly to the TSE's competitive edge at the regional level.

2.3. Prior Researches

Some studies in the past examined the association of corporate governance factors with capital structure

Guo , Ding and Sun (2010) investigated the effect of ownership structure on leverage levels. They used 365 companies from 1997 to 2009. Their research findings confirmed negative effect of ownership on leverage. Also, further investigation showed that change in the company leverage, positively associated with level of ownership concentration.

Rehman, Rehman and Raof (2010) investigated the relationship between corporate governance and capital structure in Pakistan. The results show that there is no strong significant relationship between corporate governance and capital structure in this country.

Hussainy and AlJifri (2009) examined the relationship between the corporate governance mechanisms and corporate capital structure. They divided these mechanisms into two types of internal and external mechanisms. The Sample consisted of 71 companies. The results of this study indicated that institutional investors on debt to equity ratio, have a negative impact. Also, they found that there are positive relationships between the dividend policy and debt to equity ratio. Other findings showed that the company size has positive relationship with debt to equity ratio.

Hassan (2009) investigated the effect of corporate governance monitoring mechanisms, ownership concentration, on capital structure and firm value. He used the data from nonfinancial corporate accepted in Australia Stock Exchange from 1993 to 2008. The results showed that there are significant relationship between ownership concentration with firm value, ownership concentration with leverage and leverage with firm value.

Caspedes et al (2008), examined the relationship between ownership concentration and capital structure factors in 7 countries of Latin America from 1996 to 2005. The results showed the positive relationship between ownership concentration and leverage. Also they gain positive relationship between leverage and corporate growth.

Driffliedflid , Paul and Mohembyr (2007) did research in order to find the relationship between corporate governance and ownership concentration in Indonesia, Malaysia and Thailand .The result of this study confirms that there is significantly positive relationship between leverage and ownership concentration. So they proved that the ownership concentration may be an effective supervisory mechanism.

Although there are a lot of researches in evaluation of corporate governance supervisory mechanisms on capital structure, but there is a gap in evaluating corporate governance monitoring mechanisms on capital structure of companies using financial statements items that are useful information for users decision making. Thus, this research motivated to examine the capability of these items on capital structure.

2.4. Research hypotheses

To address the research question, we intended to test the relationship between corporate governance monitoring mechanisms with capital structure. In other words, we want to know whether these factors have impact on capital structure among companies listed on TSE or not?

H₁: there is a significant relationship between board of direction size and debt to equity ratio

H₂: there is a significant relationship between institutional ownership and the debt to equity ratio

H₃: there is a significant relationship between ownership concentration and the debt to equity ratio.

H₄: there is a significant relationship between board of direction size and leverage.

H₅: there is a significant relationship between institutional ownership and leverage.

H₆: there is a significant relationship between ownership concentration and leverage.

PPP

3. Research method

In order to run the further analysis towards variables proposed as mentioned above, the study combines cross-sectional with time series data to become panel data. Panel data have both cross-sectional and time series dimensions, the application of regression models to fit econometric models are more complex than those for simple cross-sectional data sets. Econometrically, the setup we may have is as described in the following equation:

$$y_{it} = \alpha + \beta x_{it} + u_{it}$$

where y_{it} is the dependent variable, α is the intercept term, β is a $k \times 1$ vector of parameters to be estimated on the explanatory variables, and x_{it} is a $1 \times k$ vector of observations on the explanatory variables, $t = 1, \dots, T$; $i = 1, \dots, N$. (Brooks 2003). The two main approaches using panel data are known as fixed effects regressions and random effects regressions. Fixed-effects (FE) explore the correlation between predictor and outcome variables within an entity. Each entity has its own individual characteristics that may or may not influence the predictor variables. The rationale behind random effects model is unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated with the independent variables included in the model (Gujarati, 2004). In this study we investigate that whether intercept may differ across firms or not. Limer test is used for answer to question. This test use of whole Restrict Residual Sum Square (RRSS) that it get of estimating synthetic model of researched OLS and whole Unrestricted Residual Sum Square (URSS) that it get the estimated within group regression. Also, we used of Hausman test for choosing between fixed effect and random effect.

Using the theoretical literature and previous researches, in this study to test hypotheses two regression models were used that will be described each of them as follows

For analyzing data and testing the first hypothesis and its subsidiary hypotheses the regression model 4 is used:

$$D/E = BDS + IO + OC \quad (\text{Equation 4})$$

In this model the dependent variable is:

D/E: Debt/ equity = the total debt on the equity of companies

And independent variables are:

BDS: Board of direction size = the number of board direction members

IO: Institutional ownership = Total shares owned institutional investors divided by the total issued shares of companies .

OC: ownership concentration = sum of squares percentage ownership of each company's shareholders.

For analyzing data and testing the second hypothesis and its subsidiary hypotheses the regression model 5 is used:

$$D/A = BDS + IO + OC \quad (\text{Equation 5})$$

In this model the dependent variable is:

D/A: Debt/ assets = the total debt on the total assets.

3.1. Samples:

Research samples are companies listed on TSE during 2007 to 2009. In this study to determine the sample size, random sampling method based on the judgment is used. Finally companies considering the following features were selected:

- They were accepted on TSE before 2007
- In terms of increase comparability, their fiscal year ends to march.
- They are manufacturing companies
- During the research period the company is not omitted from TSE.

3-2-Hypotheses analysis and results:

For testing research hypotheses, two regression models and panel data method is used according to F test and Hasman's test. Analysis of data indicates the acceptance of fixed effects approach in industry and sample companies. Also, all the research hypotheses were tested at 95% confidence level.

Table (1) presents the results of limer and Hausman test. The results limer test show that intercept is same in corporate of statistical sampling. Also, the Hausman test is show that model is the fixed effects. Therefore, this study uses the pooled regression which both intercepts and slopes are constant.

Table 1: limer and Hausman test results for the Total Sample

Test of model	Debt/ equity= board of direction size+ institutional ownership+ ownership concentration	Debt/ assets= board of direction size+ institutional ownership+ ownership concentration
limer	4.371479(0.000)*	4.783633(0.0000)*
Husman	2.695252 (0.4410)	1.229224(0.7460)
*= significant at or below the 0.01 level and **= significant at or below the 0.05 level		

3-2-1- First hypothesis testing:

For analyzing data and testing the first hypothesis and its subsidiary hypotheses the regression model 4 was used. The results from the first hypothesis testing were verified at an industry level and in the entire sample companies. Results of testing this hypothesis in the entire sample companies’ level have shown in Table 3.

Table 3: The results of testing the first hypothesis in the entire sample companies’ level

Variables	board of direction size	institutional ownership	ownership concentration	Adjusted R-squared	F
Coefficient	1.610430	-0.587919	1.756240	0.011951	0.991866
t-stat	0.1086	0.5571	0.0803		0.397249

Results in Table 3 have shown that R² is **0.011951** in the entire sample companies’ level. It means that independent variables of regression model 4 have the ability to explain 11% of dependent variable’s variation. Where the probability value of F test is less than 5%, thus predictions by the above model is significant.

3-2-2- second hypothesis testing:

For analyzing data and testing the second hypothesis and its subsidiary hypotheses the regression model 5 was used. The results from the first hypothesis testing were verified at an industry level and in the entire sample companies. Results of testing this hypothesis in the entire sample companies’ level have shown in Table 4.

Table 4: The results of testing the second hypothesis in the entire sample companies’ level

Variables	board of direction size	institutional ownership	ownership concentration	Adjusted R-squared	F
Coefficient	-2.016580	-0.707896	3.328657	0.016528	1.361290
t-stat	0.0448	0.4797	0.0010		0.255244

Results in Table 4 have shown that R² is 0.016528 in the entire sample companies’ level. It means that independent variables of regression model 4 have the ability to explain 16% of dependent variable’s variation. Where the probability value of F test is less than 5%, thus predictions by the above model is significant.

Results related to the acceptance and rejection of subsidiary hypotheses developed in this research has shown in Table 5

Table 5: The results of testing the hypothesis H₀

Industries variables	All companies
BODS	Rejected
IO	Rejected
OC	Rejected
BODS	Rejected
IO	Accepted
OC	Rejected

Conclusion

In this research we investigated relationship between some corporate governance mechanisms such as board of direction size, institutional ownership and ownership concentration with capital structure in Tehran Stock Exchange. We do this research because these researches in this context don't do in Iran.

In the overall, the result of this research show that there is a significant relationship between institutional ownership and leverage but corporate governance monitoring mechanisms other variables don't have relationship with capital structure. The reason could be resulted from the situation of corporate governance due to the creditors point of view in decision making, but in Iran, in addition to corporate governance other factors may be considered in credit contribution.

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