



The Impact of Board Composition, Audit Fees, and Ownership Concentration on Risk Management of Listed Companies in Tehran Stock Exchange

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A B S T R A C T

Risk management has always been one of the major concerns of corporate executives, and activities in connection with the issue of risk management is growing and evolving. However, little and a few empirical research and articles associated with factors related to this issue have been conducted. This study examines the relationship between the characteristics of Board, independent audit fees and ownership concentration on business risk management. For this purpose, a sample of 105 companies listed in Tehran Stock Exchange for the 5-year period 2008 to 2012 is studied. To verify the hypothesis, regression test is used. The results of testing hypotheses suggest that there is no significant association between the characteristics of the Board and risk management business. There is a significant relationship between independent audit fees and business risk management. There is no significant relationship between ownership concentration and business risk management.

Keywords: Risk Management, Board Composition, Ownership Concentration, Independent Audit Fees.

INTRODUCTION

Environmental complexity, intensity of competition, prevailing new and developing technologies, the development of information and communication technologies, new modes of supply of goods and services, environmental issues and the organizations orientation from tangible assets to intangible assets and so on are the major factors (Allee, 2008) that have led organizations and businesses facing so many risks and high and even unpredicted perils, and because of this they face various topics of risk management (Venkatraman & Ramanujam, 1986). Risk management is known as a tool to respond to market external risks that are beyond the control of management, and to reduce company profitability fluctuation of the company (Meulbroek, 2002; Sadgrove, 2016). The stability of profitability may reduce the probability of the company financial distress and increase the likelihood of providing low-cost capital to use the business plans and appropriate opportunities (Ang, 1991; Brigham & Ehrhardt, 2013). So it can be concluded that the lack of an effective risk management in the company results in excess costs imposition to both sides (investor and investable) and also leads to reduction of performance levels of the company that is

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eyewitness of influences of the effective risk management on functional behavior (Bakke, Mahmudi, Fernando, & Salas, 2016; Doherty, 2000).

Now, in the financial literature of this study it is widely accepted that risk management can lead to conflicts of interest between managers and shareholders (Calomiris & Carlson, 2016; Godfrey, Merrill, & Hansen, 2009; Lundqvist, 2015). Especially at the time of executives receiving reward based on purchase of shares, the conflict escalates (St. Onge & Floresco, 2009). It seems that by forming a risk committee with presence of independent and efficient directors, the potential conflict is reduced.

K. Desender and E. Lafuente (2009) in their study titled *The impact of Board composition, audit fees, and ownership concentration on corporate risk management*, examined the relationship between Board composition, ownership structure and audit fees, and the degree of risk management. The main results of their study show that Board independence, audit scope and ownership structure have an important impact on the level of risk management. Companies that have independent Board and concentrated ownership show a high level of risk management. Results also show that there is a perfect relationship between audit fees and risk management. Companies with lower audit fees seem to show a more detailed risk management.

Callahan and Soileau (2010) in a study titled *Influence of Audit Committee and Internal Audit Function Effectiveness Characteristics on Enterprise Risk Management* examined the impact of the studied variables on the performance of business risk management in NYSE trading. The results show that there is a relationship between certain audit committee characteristics (number of sessions and the percentage of disclosure audit members) and some features of internal audit (audit independence and audit quality grade) with the adoption and implementation of ERM processes.

Environmental uncertainty and competition intensity of organizations and managers have faced them with numerous challenges (Fitzroy, Hulbert, & O'Shannassy, 2016). To effectively manage these challenges, new approaches of management and specific competencies have been planned and recommended. Identifying and managing risk is one of the new approaches that are used to strengthen and enhance the effectiveness of organizations. Major changes in the business environment such as globalization of business, and rapid changes in technology management have increased competition and toughness in organizations (Giunipero & Aly Eltantawy, 2004; Kerzner & Kerzner, 2017). In today's business environment, management and staff must be able to deal with interrelationships and ambiguous and complex dependencies between technology, data, tasks, activities, processes, and people (Sandhu & Gunasekaran, 2004; Seethamraju & Seethamraju, 2009). In such a complex environment, organizations need managers who took into consideration and separate the inherent complexity in their important decision making (Aldrich, 2008; Doherty, 2000; Pettigrew, 2014). In general risk is known with the concept of the probability of loss tolerance or uncertainty and has various types and different classifications (Aven, 2015; Heckmann, Comes, & Nickel, 2015; Williams & Baláž, 2013). All forms of risk include common elements such as content, activities, conditions and consequences. Effective risk management that is based on a valid conceptual principle constitutes an important part of the decision making process.

METHODOLOGY

The present study in terms of the classification of the research based on the goal is application type and in terms of the classification based on the method is descriptive – correlation type. Its main purpose is to determine the existence, degree and type of association between the tested variables. It is based on Ex-Post Facto approach (through the past information). The

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statistical model used in this study, is (simple and multiple) regression model and independent T-test is applied for hypotheses testing and determining the effects of factors. The collected data were calculated using Excel software and were analyzed by the application of Spss16 software. The research sample is all listed companies in Tehran Stock Exchange during the years of 2008 to 2012. The number of samples in this study, which were a total of 105 companies, was selected using systematic exclusion sampling and according to the following criteria:

1. The end of the financial year of the company must be March.
2. Financial companies (such as banks and insurance institutions) and investment companies are excluded from the sample.
3. They should be listed in Stock Exchange before 2005 and its stock price must be determined at the end of each year from 2008 to 2012.
4. Company's fiscal year must not change during the study period.
5. During the course of study, they have disclosed audit fees.
6. Financial information of the company must be available on the study period.

These companies' information is collected from Tehran Stock Exchange, Tehran Stock Exchange website and Rahavard, Sahra and Tadbir Pardaz software.

Research Variables

To test the research hypotheses of K. A. Desender and E. Lafuente (2009) will be used as follows:

$$ERM = \beta_0 + \beta_1 BORDIN + \beta_2 BORDSIZE + \beta_3 CEOCHAR + \beta_4 AUFEE + \beta_5 OWNSHIP + \varepsilon$$

Dependent variables

In this research, risk management is the dependent variable.

Independent variables

1. Independence of the Board (the ratio of non-responsible Board)
2. Size of the Board
3. Separation of the Board manager roles and CEO
4. Audit fees
5. Ownership concentration

ERM: Business risk management that is defined as the standard deviation of stock returns of company and reflects the company's risk.

BORDIN: Board Independence that is equal to the ratio of the number of non-responsible Board to the total number of Board of Directors

BORDSIZE: The Board size that is equal to the total number of members of the Board of Directors

CEOCHAR: Duality of the Board manager that is a dummy variable equal to one if the Board manager is also CEO and zero otherwise

AUFEE: Independent audit fees and is equal to total fees paid during the year

OWNSHIP: Ownership concentration that is equal to the sum of major shareholders percentage

Stock returns: returns per share equal to the change in stock price compared to last year plus dividends per share at the end of the year.

RESULT

The information of this section presents features of the studied variables among the sample firms. Descriptive statistics of variables is shown in table (1):

Table 1. Descriptive statistics

| | Variables | Risk of the company | Independence of the Board | Duality of CEO | Size of the Board | Audit fees | Ownership concentration |
|--------------------|-----------|---------------------|---------------------------|----------------|-------------------|------------|-------------------------|
| Number | Correct | 88 | 88 | 88 | 88 | 88 | 88 |
| | Lost | 0 | 0 | 0 | 0 | 0 | 0 |
| mean | | 1033.3953 | .7172 | .39 | 5.1818 | 5.9390 | 3414.4368 |
| median | | 786.2800 | .7360 | .00 | 5.0000 | 5.9802 | 2950.1750 |
| standard deviation | | 864.02585 | .20441 | .490 | .44322 | .95562 | 2085.031 |
| skewness | | 1.575 | 1.221 | .475 | 2.452 | -2.378 | 859. |

Descriptive statistics of research variables indicates that the dependent variable, i.e. business risk management, is with mean of 1033.39 and a standard deviation of 864.03. The investigation of mean of the independent variables indicates that Board independence variable is with mean of 0.72, separation of the Board manager roles and CEO is with mean of 0.39, and Board size is with mean of 5.19 that it suggests most of the companies have independent Board, but the role of CEO duality between them is less isolated. The mean of other independent variables show that the mean of audit fees is 5.93 and the concentration of ownership is 3414.44, which shows that the majority of the surveyed companies have an independent audit fees and in terms of ownership concentration most of the companies have more concentrated ownership.

First hypothesis: There is a significant relationship between the characteristics of the Board and business risk management.

Table 2. Effect coefficients of the first hypothesis regression model

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
|------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | 3173.493 | 1198.008 | | 2.649 | .010 | - | - |
| the Board Independence | -801.392 | 464.049 | -.190 | -1.727 | .088 | .953 | 1.070 |
| CEO Duality | -223.127 | 192.459 | -.126 | -1.159 | .250 | .947 | 1.056 |
| Board size | -285.533 | 209.559 | -.146 | -1.363 | .177 | .975 | 1.026 |

Results of the regression coefficients of the Board features indicate that the significance level of variables is greater than 5 percent ($\text{sig} > 0.05$), so the impact of the Board features on business risk management is not significant. As a result, assumption H0 is accepted and assumption H1 is rejected. In other words, the Board features have no significant effect on the business risk management. But the remarkable thing is the negativity of the variables coefficients. It shows that all variables of the Board features have a negative impact on the business risk management. That is to say, the more the independence of the Board, Board size and separation of the Board manager roles and CEO, the less the business risk management of companies. So that, if independence of the Board of directors increases one unit the company's business risk will decrease as -0.190 unit.

Second hypothesis: There is a significant relationship between the independent audit fees and business risk management.

Table 3. Effect coefficients of the second hypothesis regression model

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
|------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | -240492 | 569.664 | .237 | -.422 | .674 | - | - |
| Audit fees | 214.494 | 94.714 | | 2.265 | .026 | 1.000 | 1.000 |

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Test results of coefficients of variables show that significance level of regression coefficients (0.237) of independent audit fee (sig =0.026) is less than 5%, i.e. independent audit fee variable has a significant effect on business risk management. Hence the hypothesis H0 is rejected and hypothesis H1 is accepted. According to the results of independent audit fee coefficients this variable can increase or positively change business risk management of companies by as much as 0.237 of the standard deviation.

Third hypothesis: There is a significant relationship between ownership concentration and risk management business.

Table 4. Effect coefficients of the third hypothesis regression model

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Collinearity Statistics | |
|-------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| | B | Std. Error | | | | Tolerance | VIF |
| (Constant) | 1216.626 | 176.994 | -.129 | 6.874 | .000 | - | - |
| Ownership concentration | -.054 | .044 | | -1.211 | .229 | 1.000 | 1.000 |

Results of the regression coefficients table shows the cover level of ownership concentration regression coefficient (-0.129) is greater than 5% (sig=0.229). That is to say, assumption H0 is accepted and assumption H1 is rejected with 95% confidence, and it should be stated that ownership concentration has no significant effect on business risk management. However, this variable can reduce or negatively change business risk management of companies by its coefficient amount, that is -0.129.

CONCLUSION

This study examined the relationship between Board composition, audit fees and ownership concentration, and risk management of companies. Hypotheses that related to the relationship between Board characteristics and ownership concentration have been rejected in regression test. But the remarkable thing is the negativity of the coefficients of variables. It shows that all variables of the Board features have a negative impact on the business risk management. That is to say, the more the independence of the Board, Board size and separation of the Board manager roles and CEO, the less the business risk management of companies. The result of the test hypothesis related to Board characteristics and ownership concentration is not consistent with research results of Razali, Yazid, and Tahir (2011) based on "the presence of senior management and major shareholders are the affecting factors on the implementation of risk management".

Hypothesis concerning the independent audit fee was accepted in regression test. The results of testing hypothesis concerning the independent audit fee are consistent with the research results of Callahan and Soileau (2010) that "there is a relationship between certain audit characteristics (audit independence and the degree of audit quality) and the adoption and implementation of ERM processes", and K. Desender and E. Lafuente (2009), that " there is a significant relationship between audit fees and risk management".

Assumption related to ownership concentration was not confirmed in regression test. Results of testing hypothesis related to the concentration of ownership are not consistent with research results of K. Desender and E. Lafuente (2009) that "companies with concentrated ownership demonstrate the highest level of risk management".

Recommendations based on the research results

The first research hypothesis was accepted. It appears that the more the number of external directors of Board, the more the number of activities to confront companies' risk. So, it is recommended to companies to address corporate risk, apply more external managers in the

composition of the Board and consider the separation of CEO role from the manager of the Board in the future plans.

The second research hypothesis was accepted. Therefore, risk management of companies cannot alone establish the necessary conditions for better internal controls. But it can facilitate the work of the independent auditor, leading to lower independent audit fees. So it is recommended to the CEO to reduce audit costs (and subsequently reduce the cost of the company during the financial periods), in order to enhance and improve risk management in corporations, investigate, identify, and assess factors affecting risk management and monitoring procedures on risk management.

The third research hypothesis was not accepted. It indicates that the existence of risks in the company is natural and ordinary, thus reflecting and reporting risk is a common perception as well and generally is beneficial to the company. Since investors, both shareholders and creditors, with the corporation's risk awareness, will have more confidence to the corporation and their expected level of earnings and interest will be reduced, resulting in lower cost of capital. Therefore, managers are advised to inform investors about important changes in risk of the company through the disclosure of supplemental information in financial statements.

It seems that shareholders and owners' more focus on corporate cannot account for the risk management of the companies. Therefore, this factor cannot be considered effective on corporations' risk management. As a result, regardless of the composition and distribution of shareholders, risk management in the companies should be followed.

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