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Surveying the relationship between Corporate Governance and Bankruptcy Risk in Tehran Stock Exchange

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Abstract

In this study, the relationship between corporate governance indices and the risk of bankruptcy was examined. The statistical population was chosen among Tehran Stock Exchange companies and by using systematic write off method the financial information related to 81 companies in a five-year period of 2019 - 2023 were collected¬ and then the hypotheses of the research were analyzed via panel regression models by using the fifth version of software SPSS. The results show that governmental ownership, majority ownership, Managers ownership and financial leverage in a confidence level of 95% and the error of 5% is significant but it is reverse. As a result, there is a reverse relation between these variables and the risk of bankruptcy. Also, there isn't any relation between the variable of inside or outside board members ratio ones and the risk of bankruptcy due to the significance level of more than 5%¬ in this confidence.

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1-Introduction

Recent years have witnessed considerable advances in the establishment of corporate governance through legislation, supervision and also companies' voluntary actions in developing and developed countries. And now, the investors and shareholders have more information about the necessity and importance of corporate governance and are interested to establish this system in their companies. Several empirical researches show a positive relationship between corporate governance and yield of companies. Generally speaking, corporate governance is the controlling and directing system of the company, something that determine, control and direct the relationship between company and beneficiaries. In micro level, it follows the achievement of the companies' objectives and in macro level it focuses on the optimal allocation of resources (Daryai, 2008).
Corporate governance began from 1990s in England, United States and Canada in responding to the problems caused by the lack of effectiveness of the board of directors on the performance of big companies. The first bases of corporate governance were shaped by Cadbury reports in England, reports in Canada and the regulations of the board of directors in General Motors in the United States (Fich and Slezak 2008; Setayesh and Mansuri, 2015). Corporate governance is a series of instructions, structures, processes and cultural norms by the help of their observation companies will reach at their targets of clarity of business processes, accountability to the beneficiaries and safeguarding their

interests. Corporate governance mechanisms decrease the problems of agency in the companies. The quality of these mechanisms is relative and different from one company to another. (Ahmadpour et.al. 2012). Powerful corporate governance in companies is the most significant tool to prevent corruption. Studies showed that the weakness of corporate governance results in the increase of financial corruption followed by a reduction of direct domestic and foreign investment, increase of the government's expenses and decrease of economic growth. In 1990s, after some expansive financial scandal in famous companies the issue of corporate governance was for the first time presented. The financial crisis of the East Asia in the second half of 1997, many important questions regarding the reliability of financial statements and the role of large international institutions in their financial reports were arisen. Due to this crisis, lack of financial stability, sudden outflow of foreign capitals and weakness of corporate governance procedure in micro and macro levels (companies and national economy) caused the fall of companies and economy in this region (Fathi and zanjirdar, 2010).

Today the preservation of public interests, the observation of the equity, the promotion of information clarity and companies' obligation to perform their social responsibility is among the most important ideals which nowadays is being more attended by the executive and regulatory authorities compared to the past. The realization of these ideals necessitates the existence of strict law and proper executive mechanisms of which the most significant one is corporate governance and the reason for lack of supplying public interests might be due to the lack of some corporate governance mechanisms which can result in the final objective of the company that is increasing the interests of the shareholders and improving the performance of the company in addition to its accordance with all mentioned criteria (Hassas Yeganeh et.al. 2006).

The Organization for Economic Cooperation and Development (OECD) defined corporate governance as "a group of relationships between management, board of directors, shareholders and other beneficiaries of the company". This term has also provided a structure whereby the objectives of the company are codified and the instruments for achieving them beside the way of supervising directors' performance are determined. Today, the largest economic changes and perhaps the most important cause of industrial development is the emergence of corporations in the industrial world which began in the 18th century. Among the consequences of this phenomenon are the separation of ownership from management, natural difference in their utility functions which result in the formation of interests' conflict followed by the creation of owner-agent relationship and the theory of agency. Since that time the problem of rights interference in general and the risk of foreclosing minority equity by the major shareholders with controlling influence in particular have been among the major owner-agent problems in many countries (Raii and Talangi, 2004). Risk identification and management is a new approach which is used for promoting the effectiveness of the organizations. Regarding the nature of its own business, every organization experience various risks and in the present changing conditions, the success of each enterprise basically depends on its dominance over risks and the kind of management it applies on them. In the domain of financial activities risk is considered as an effective key factor in the performance of banks and financial institutions. In fact, identifying and determining different kinds of risks in various parts of financial activities play a key role in their stability and survival. The fundamental structure of risk estimation includes risk identification, risk assessment and estimation of the severity of consequences (Ghalami &his collegues, 2011, p.13(. Risk is divided into two main groups that are financial and non-financial risks. Non-financial risk is caused by market changes while financial risk emerges due to probability of loss in financial markets because of the change in financial factors. Default risk occurs when the borrower fails to commit his obligations to the lender in due date because of his disinclination or incapability (Nabavi and Seyed, 2009). Bankruptcy and scandals of companies such as Enron and World Come highlighted the necessity of creating proper corporate governance system for companies as one of the most important issues in the countries (Eliezer and Slezak, 2008). Corporate governance has recently attracted much attention to protect investors' rights. It has become one of the essential mechanisms for managing and controlling companies in the capital market. At present, many countries have minimum corporate governance requirements. Although corporate governance indicators vary substantially among countries, different countries require listed companies on the stock exchange to comply with these requirements. Corporate governance minimizes the conflicting interests between internal and external stakeholders and shareholders. The corporate governance structure affects the quality of accounting disclosure and information quality assessment and guides analysts to accurately forecast future performance (Cheng et al. 2019; Kashani et al, 2022).

Default risk is among the major risks which influence especially monetary and financial institutions since defaulting a small number of customers can impose many disadvantages for an organization (Rostami and Abasi ASL, 2015). When customers face financial crisis due to economic weakness, default probability increases, so default risk emerges. Development of economic and financial activities in the recent decades has caused governing and directing business companies more complicated. Generally, there are three main sources of problem and incongruity ahead of the corporations including conflict between directors and shareholders, conflict between the interests of major and minor shareholders and finally the conflict between the interests of the old and new shareholders. The solution to all these conflicts is the participation and cooperation among all influential factors on the company's performance; in other words, the corporate governance. Turbulent and growing securities markets in the world also depend on the complicated supportive systems which improve governance system in public corporations. The main characteristics of this system are: 1- it assures minority shareholders that they received reliable information about the company's value and they were not abused and betrayed by the directors and major shareholders; and 2- it encourages directors in such a way that they try to increase the value and profits of the company instead of following their personal goals (Mashayekhi, 2008). The primary rights of every investor in an economic system are the right to know, to receive interests, to deal assets and to manage. The reality is that every individual in the role of buyer or seller, for example as an investor demands two basic rights of the market. The first one is that his activity is covered by moral and ethical requirements. In another words, he is supported against corruption in the market. The next is the right of having a purposeful activity framework. It helps the activities to be regulated regarding the objectives of dynamism and survival of the market (Farhanian, 2008).

Based on the bylaws of corporate governance system authorized at 2/11/2007 in the board of directors of Tehran Stock Exchange, the mission of corporate governance was defined as: 1- the realization of the highest moral standards, 2- the performance of what is announced, 3- clear and accurate reporting of results and 4- complete observation of rules, regulations and bylaws predominating company's affairs. Corporate governance provides a structure through which the objectives of the company are set and tools to achieve these objectives and the manner to supervise the performance of the company are determined. This system gives the management the necessary motive for satisfying companies' goals and provides an influential supervision. In this way, companies use sources with higher effectiveness. At present, minor shareholders have no means at hand to control and supervise the work of directors and are not aware of the board of directors' authorizations beside that the complete financial statements are not accessible to them while in the bylaws of corporate governance it is predicted that stock companies (that are involved in the bylaws of corporate governance system) should have an electronic information database. Environmental unreliability and the intensity of competition between organizations has made their directors face numerous challenges. In order to manage these challenges effectively, new management approaches and particular merits have been recommended. Identifying and managing risk is one of these approaches that is used for promoting the organization's effectiveness. Regarding the nature of its activity, every organization experience various risks and in today's unstable condition the success of each enterprise depends basically on its dominance over risks and the kind of management it applies on them. Credit risk in industry is imposed on the organization by the customers or the organization itself may cause it through its weak performance at paying debts. So. According to the above-mentioned materials we are looking for an answer to this question that whether the factors and indices of corporate governance are particularly related to the bankruptcy risk.

2-Methodology

The main purpose of this study is surveying the relationship between Corporate Governance and Bankruptcy Risk in Tehran Stock Exchange. With respect to the objectives, this research stands within the category of applied researches and the methodology used here is correlation both by substance and nature. This research has been done in the framework of inductive deductive reasoning in such a way that the theoretical bases and background are formed through desk studies, articles and websites and the process of collecting information for proving or disapproving hypotheses have been done in the inductive method. In order to collect, classify and initial processing of data Excel software was used. In this stage data related to the stock market which were previously drew out from the Stock Information and Trading software are directly input in Excel and after proper classification of data beside primary processing and calculations, the output information is used by SPSS to run and test the hypotheses. The studied population of the present research was chosen from among 523 companies accepted in Tehran Stock Exchange between 2019-2023 and should have had the following terms in order to enter the sample. 1) They had to designate Esfand 29th as the end of their fiscal year, 2) they did not have to be among financial companies (such as banks or financial institutions) or investment companies, 3) they did not have to change their fiscal year during the research period and 4) there must be an accessibility to their financial information and explanatory notes. Sampling was done in the write-off method by applying the above conditions and the final sample involved 81 companies. The information used in this research were gathered from financial statements and their appendix notes in addition to the primary information on the Exchange board (collected in the Rahavard Novin software and information bank of the Exchange census bureau). Since research variables are kind of distance (discrete), the methodology is correlation. We used Pearson correlation test.

3-Results

3-1-Descriptive Results

The estimation of descriptive statistics related to variables is necessary for knowing their general and basic features which enable us to estimate the model and accurately analyze them. The most important feature of average distribution and the main feature of its dispersion is distribution variance. In practice, to identify the amount of dispersion, the square root of variance amount which is standard deviation is used. In this way, a general overview of the amount of each variable is obtained. In table 1 the information related to descriptive statistics of the research variables such as central indices, dispersion indices and symmetry deviation have been brought forward.

Table 1: Variables Descriptive Statistics

	SO	IO	INS	BS	SIZE	Z	GROW	SEC	LEV
Mean	0.678756	0.536883	0.161501	0.830479	6.072310	2.432010	0.205851	0.224870	0.593788
Median	1.000000	0.609705	0.112858	0.897000	5.947036	2.214434	0.163490	0.000000	0.617641
Maximum	1.000000	0.980000	0.897993	1.000000	8.172233	5.860938	1.307654	1.000000	0.936925
Minimum	0.000000	0.062822	0.000511	0.350000	4.697282	-0.058200	-0.387217	0.000000	0.191969
Std. Dev.	0.467560	0.277009	0.160082	0.155741	0.643075	1.196272	0.238703	0.292359	0.163142
Skewness	-0.765628	-0.187487	1.694064	-1.135046	1.034722	0.573836	1.379291	1.081700	-0.362338
Kurtosis	1.586186	1.649886	6.245011	3.498735	4.074704	2.954939	6.077574	2.869692	2.533716
Jarque-Bera	69.85979	31.57825	353.9862	86.88297	87.45453	21.21685	274.7233	75.54785	11.94310
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000025	0.000000	0.000000	0.002550
Sum	262.0000	207.2368	62.33940	320.5649	2343.912	938.7558	79.45842	86.80000	229.2021
Sum Sq. Dev.	84.16580	29.54259	9.866146	9.338296	159.2150	550.9611	21.93694	32.90737	10.24687
Observations	386	386	386	386	386	386	386	386	386

Considering findings in table 1, skewness coefficient in variables of institutional ownership, governmental ownership, majority ownership and financial leverage is negative that proves skewness to the left and variables' desire to greater amounts. Positive skewness coefficient in other variables prove skewness to the right and variables' desire to smaller amounts. Kurtosis coefficient in all variables was positive meaning that the variables distribution kurtosis is bigger than normal distribution and data has been focused around the average.

3-2-Hypotheses Results

In this paper we have five main hypotheses. The statistical way of analysis of hypotheses is two ways, H_1 is acceptance of hypothesis and H_0 is rejecting of hypothesis. In other words, it means that H_1 has positive meaning and H_0 has negative meaning. According table 1 the test distribution is normal so, we can use Pearson Correlation test.

Very high values for $R^{statistic}$ is the most obvious sign for identification of collinearity but none of regression variables coefficients should be statistically significant or correlation between each two variables is greater than the square root of determination coefficient. In this research by examining these two factors it was demonstrated that there is not any collinearity among variables. Independent variables on the risk of bankruptcy in companies was tested by Pearson Correlation. The results of testing research hypotheses are as the following:

H1: there is a significant relationship between institutional ownership and risk of bankruptcy.

- Null: there is not a significant relationship between institutional ownership and risk of bankruptcy.
- Alternate: there is a significant relationship between institutional ownership and risk of bankruptcy.

Table 2 shows the results of Pearson Correlation test for institutional ownership as independent variable and the risk of bankruptcy as independent variable.

Table 2: results of hypothesis 1

In Dependent variable	*Dependent variable*	*r*	*Sig*
Institutional Ownership	Risk Of Bankruptcy	-0.351	0.002

Regarding the significance level of institutional ownership in the output table of this hypothesis which is 0.002<5%, it is proved that with 95% confidence. So, we can accept Alternate hypothesis and say that there is reverse relationship between institutional ownership and risk of bankruptcy in Tehran Stock Exchange.

H2: there is a significant relationship between governmental ownership and risk of bankruptcy.

- Null: there is not a significant relationship between governmental ownership and risk of bankruptcy.
- Alternate: there is a significant relationship between governmental ownership and risk of bankruptcy.

Table 3 shows the results of Pearson Correlation test for governmental ownership as independent variable and the risk of bankruptcy as independent variable.

Table 3: results of hypothesis 2

In Dependent variable	*Dependent variable*	*r*	*Sig*
Governmental Ownership	risk of bankruptcy	-0.222	0.004

Regarding the significance level of governmental ownership in the output table of this hypothesis which is 0.004≤5%, it is proved that with 95% confidence. So, we can accept Alternate hypothesis and say that there is reverse significant relationship between governmental ownership and risk of bankruptcy in Tehran Stock Exchange.

H3: there is a significant relationship between Managers Ownership and Risk of Bankruptcy.

- Null: there is not a significant relationship between manager's ownership and risk of bankruptcy.
- Alternate: there is a significant relationship between manager's ownership and risk of bankruptcy.

Table 4 shows the results of Pearson Correlation test for manager's ownership as independent variable and the risk of bankruptcy as independent variable.

Table 4: results of hypothesis 3

In Dependent variable	***Dependent variable***	***r***	***Sig***
Managers Ownership	risk of bankruptcy	-0.412	0.000

Regarding the significance level of manager's ownership in the output table of this hypothesis which is 0.000≤5%, it is proved that with 95% confidence. So, we can accept Alternate hypothesis and say that there is reverse significant relationship between managers ownership and risk of bankruptcy in Tehran Stock Exchange.

H4: there is a significant relationship between the inside or outside board members ratio and the risk of bankruptcy.

- Null: there is not a significant relationship between inside or outside board members ratio and risk of bankruptcy.
- Alternate: there is a significant relationship between inside or outside board members ratio and risk of bankruptcy.

Table 5 shows the results of Pearson Correlation test for inside or outside board members ratio as independent variable and the risk of bankruptcy as independent variable.

Table 5: results of hypothesis 4

In Dependent variable	***Dependent variable***	***r***	***Sig***
Inside or Outside Board Members Ratio	risk of bankruptcy	-0.158	0.345

Regarding the significance level of inside or outside board members ratio in the output table of this hypothesis which is 0.345>5%, it is proved that with 95 % confidence. So, we can accept null hypothesis and say that there is not significant relationship between inside or outside board members ratio and risk of bankruptcy in Tehran Stock Exchange.

H5: there is a significant relationship between majority ownership and risk of bankruptcy.

- Null: there is not a significant relationship between majority ownership and risk of bankruptcy.
- Alternate: there is a significant relationship between majority ownership and risk of bankruptcy.

Table 6 shows the results of Pearson Correlation test for majority ownership as independent variable and the risk of bankruptcy as independent variable.

Table 6: results of hypothesis 5

In Dependent variable	***Dependent variable***	***r***	***Sig***
Majority Ownership	Reducing the risk of bankruptcy	-0.321	0.001

Regarding the significance level of majority ownership in the output table of this hypothesis which is 0.004≤5%, it is proved that with 95 % confidence. So, we can accept Alternate hypothesis and say that there is reverse a significant relationship between majority ownership and risk of bankruptcy in Tehran Stock Exchange.

4- Conclusions and Suggestions

The results of this research can be used at the time of reviewing of governance by laws in Iran. It also can help companies' board of directors and investors to identify solutions for increasing performance level and by considering the influential factors on the future performance of companies make better decisions.

Governmental ownership decreases credit risk of companies and it shows that the investors due to the government's support of public companies trust them more and this decreases risk of bankruptcy which finally investment in this group of companies is increased to portray a country with governmental economy. Based on the results of third hypothesis, Managers ownership decreases risk of bankruptcy. The reason can be sought in directors as shareholders of the company and benefiting from company's growth. Therefore, it seems that the investors are more interested to invest in companies where their directors are among their shareholders. In the fourth hypothesis, it was concluded that the increase in the ratio of inside and outside directors increase bankruptcy risk of companies. It can be due to this fact that the investors believe that companies with few outside members in the board have less control over their performance thus bankruptcy risk is increased. Then, the managers are recommended to increase the number of non-executive or outside directors in the board structure in order to lower the risk and increase investment in their companies. According to the results of H5 as major owners decrease the risk of bankruptcy is decreased too since these owners because of possessing major percentage of company's stock neither are able to control the company themselves powerfully nor let other owners to do it because of their weak position, so it is better that companies sell their stock to split.

Since until now no similar research has checked out the five hypotheses together as this study the results comply with what's found by Rostami et al (2015), Vasile Dedua et.al (2013) وWei Ting (2011) yet are at contrast with the results of Namazi et.al (2012), Modares et.al (2009), Hassas Yeganeh. Y. & his collegues (2009), Dong Chen, and Yudan Zheng. (2012) studies.

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