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### Measurement and evaluation of financial health based on the corporate governance mechanisms (Environmental conditions of Iran)

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#### ABSTRACT

This study aimed to examine the role and impact of corporate governance mechanisms on the financial health of firms. For this research, among the companies listed in Tehran Stock Exchange, based on Cochran formula, 27 companies were selected and classified, as the financial health of model of Taghavi and Pour Ali, into two groups, healthy and distressed companies. Corporate governance mechanisms have been measured by the numbers 0 and 1 and percentages, based on the research conducted of the past, which consists of institutional investors, the percentage of float shares, non-bound managers percent, the independent auditor type, the companies with public and private ownership, the companies of major and minor and CEO duality are considered for an 8-year period. It was tested two-sided logistic regression and Pearson correlation of the hypotheses. Test results indicate that corporate governance mechanisms in terms of the environmental condition of Iran have been the limited impact and role on the financial health of the companies which have may reflect the influence of other factors in the quality of the implementation of corporate governance mechanisms.

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### INTRODUCTION

The problem of representativeness would be one of the major obstacles to the dissemination of information is reliable. Without this representativeness problem, the quality of reporting will make no special problem because managers have no incentives to falsify financial reports or keep the information secret. The corporate governance mechanisms are in reducing the representativeness problem. The corporate governance is a set of mechanisms that affect the company's performance. This mechanism is associated with the welfare and objectives of all stakeholders, including corporations and shareholders, management, the board, lenders, regulations, and the economy as a whole. The purpose of corporate governance is to maximize for all stakeholders and to stimulate economic effectiveness. Since today is a fundamental business strategy to avoid bankruptcy which aims to ensure business operations debates on predicting the profitability of and evaluating the continuity of the companies' operations have received attention of the researchers.

On the other hand, rapid technological advances and wider changes in environment, has a growing momentum to the economy, increasing the competitiveness of enterprises is making limited access to returns and also it bringing about probability of incapable of commitment function and of stopping activity increasingly. The recent unprecedented bankruptcies of large companies on an international level and fluctuations in the stock exchange of Iran, the financial crisis of the companies and major domestic industries and their impact on the bankruptcy, and disappearance of them can be cited as a grisly financial Tsunami have created concerns that requires tools in evaluating the financial health of the companies with regard to environmental conditions to be existed. Financial health is the firm's profitability and solvency [4]. To diagnose the financial health condition, based on Naydo's studies, the company's financial health divided into three levels, healthy, middle, and distressed. Naydo [11] introduced profit after tax-reduction as a explanatory variable of the finance health.

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However, because this model in South Africa and those environmental conditions was designed and provided, therefore, native and Iranian financial health model of Pour Ali and Taghavi (2010) was being used at this study.

By the same token, Nikoomaram and pourzamani [12], in a study entitled "Corporate governance and companies' bankruptcy prediction" showed that there are no significant consequences about relation of ownership structure, the board characteristics and auditor's commitment with the probability of financial crises occurrence. The results of Lakshan and Vijeekan [8] indicated that there is an inverse relation of ratio of the non-bound managers and the Audit Committee existence with the bankruptcy, and positive relationship between the CEO duality and the bankruptcy; and no relation of the board size and auditors' commitment with the bankruptcy. Pour Ali and Taghavi in 2010 presented "Financial health Assessment and Evaluation Model". This is based on the Naydo's [11], and its result is such that the companies of Iran were divided into two category, healthy and distressed, contrary to the results Natdo's model of South African companies into 3 categories, healthy, middle, and distressed. This is based on relations of some financial ratios with financial health.

In general, the main research question is whether the implementation of corporate governance mechanisms on firms promotes the financial health of the companies and as a result, makes their activities continued or not. Stakeholders need to understand this issue whether corporate governance is related to the financial health of the companies, which component of corporate governance would be effective in this work, and whether changes in corporate governance mechanism of the companies cause the changes in the financial health of these.

## 2. Methodology:

This investigation is of semi-empirical and a post-event approach (through past information). On the other side, present study is a descriptive-correlated survey. This is a quantitative research, in terms of the nature of the data. According to objectives, it is considered a practical one. To examine research hypotheses and given the nature of information, research data is based on real and quantitative past information.

### 2.1. The research hypotheses:

- Institutional investors are more likely to cause changes in the financial health of the companies.
- By changing the ratio of non-bound managers to the board members, the financial health of the companies would be altered.
- CEO duality changes the company's financial health.
- The role of the independent auditor's type (public and private) changes the company's financial health.
- By changing the percentage of float shares, the financial health of the companies is subject to changes.
- The role of ownership type (public and private) changes the financial health of the companies.
- The role of companies of major and minor changes financial health of the companies.

### 2.2. Statistical population, sampling method and sample size:

To conduct the study, the statistical sample is chosen of the companies in Tehran Stock Exchange which including the following conditions:

- 1- Companies listed in Tehran Stock Exchange before year 2005.
- 2- Companies, during the years 2005 to 2012, without transactions interrupted, and their stock are active during aforementioned years.
- 3- A company under investigation would not belong to investment companies.
- 4- Relevant financial statements and explanatory notes are available entirely.
- 5- The end of their fiscal year end is 20<sup>th</sup> March for each year.
- 6- Over years under study, they did not change the fiscal year.
- 7- Not of insurance and construction companies.
- 8- Surveyed companies do not go bankrupt during the 8-year study.

In view of the above circumstances, the population includes 331 active companies in the Stock Exchange of which 72 companies sample were randomly according to Cochran formula. Considering the model provided in Iran, the companies have been categorized into healthy (50 companies) and distressed (22 companies).

### 2.3. The research model:

The regression model, below, is related to hypotheses at the first section.

$$Y = \alpha_0 + \alpha_1 \text{INSTOWN}_1 + \alpha_2 \text{OUTRATIO}_2 + \alpha_3 \text{MANAG}_3 + \alpha_4 \text{AUD}_4 \\ + \alpha_5 \text{FLOATSHARE}_5 + \alpha_6 \text{OWNTYPE}_6 + \alpha_7 \text{PARENT}_7 + \alpha_8 \text{SIZE}_8 \\ + \alpha_9 \text{M/B}_9 + \alpha_{10} \text{LEV}_{10} + \text{Year effects} + \text{Industry Effects} + \varepsilon_{it}$$

Y: Financial healthy

INSTOWN: intuitional investors

OUTRATIO: ratio of non-bound managers

MANAG: CEO duality

AUD: type of independent auditor (public and private)  
 FLOATSHARE: float share in percent  
 OWNTYPE: ownership type  
 PARENT: the companies of major or minor  
 SIZE: firm size  
 M/B: ratio  
 M/BLEV: leverage ratio

#### 2.4. Operational definition of the research variables:

**Table 1:** operational definition of the research variables

Dependent variables	
Name of variable	How to measure
Financial healthy	$P(Z) = \frac{e^{-Z}}{1 + e^{-Z}}$ Health company: $Z = -14.408 + 3.62 (EVA) - 0.977 (MVA) + 0.097 (\text{debt ratio}) + 5.671 (\text{Snap ratio}) - 0.11 (\text{net trading capital to total assets}) + 0.805 (\text{current ratio})$
	$P(Z) = \frac{e^{-Z}}{1 + e^{-Z}}$ Distressed companies: $Z = -461.003 - 143.095 (EVA) - 91.52 (MVA) - 0.536 (\text{debt ratio}) + 52.141 (\text{Snap ratio}) - 3.635 (\text{net trading capital to total assets}) - 30.417 (\text{current ratio})$
Dependent variables	
Institutional investors	More than 5% of company shares are owned by insurance and investment institutions, companies and organizations. Institutional investors are denoted by 1 for more than 50% and less than that by 0.
Company's ownership of public and private	More than 50% of shares owned by the government. If the company is public, it will be valued by 0, otherwise 1.
Ratio of non-bound member of the board	Ratio of the number of non-bound member of the board is determined in percent.
Percent of float share	Float Shares in Shareholders hand which are tradable, which is determined in percent.
Type of independent auditor	If the company's independent auditor is public, it will be denoted 1 and otherwise (private audit institute).
The company of public and private	If the company is a major (mother company), it is denoted by 0; and minor, by 1
Attendance or not attendance of CEO as the chairman of the board (Duality)	If the CEO is the chairman of the board, it is denoted by 0 and otherwise, by 1.
Control variable	
Firm size	Natural logarithm of the total assets
Leverage ratio	Ratio of total debts to total assets
M/B ratio	Ratio of market-to-book value per share

#### 2.5. Methods of data analysis:

The first section examines descriptive statistics in terms of minimum, maximum, domain, central tendency statistics such as mean, median, mode and standard deviation. The second section, first by means of Pearson correlation test between the independent variables we test for the presence or absence of co-linearity among the independent variables. However, to perform a linear regression analysis, the dependent variable should be quantitative and in distance / relative measurable level. But our dependent variable in the study doesn't have interval / relative scale and its scale is two-sided nominal scale. Thus, we used two-sided logistic regression. To test the model fit and the significance of each variable effect, Chi-square and Wald statistics were used. In order to calculate effect of year and effects of the industry, due to SPSS software, Excel software was used to drawing the Matrix.

### 3. Results:

#### 3.1. Descriptive statistics:

**Table 2:** Descriptive statistics

The name of variable	Minimum	Maximum	Pseudo	Mean	SD
Institutional investors	0	1	1	-	0.3634
Ratio of non-bound managers	0.28	0.8	-	0.615	0.1171
Auditor type (public and private)	0	1	0	-	0.4567
Float shares percent	0.05	0.9	-	0.344	0.1492
Ownership (private-public)	0	1	1	-	0.4303
The company of major or minor	0	1	1	-	0.4666
CEO's duality	0	1	1	-	0.1429
Firm size	3.56	33.43	-	27.36	2.0942
Financial leverage	0.04	1.68	-	0.6206	0.1854

Market-to-book value	-1.14	8.97	-	1.7603	1.1527
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### 3.2. First hypothesis testing:

**Table 3:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	-0.623	0.492	0.602	1	0.275	0.333
Institutional investor	-0.309	0.174	0.906	1	0.241	0.602
Firm size	0.162	0.352	2.221	1	0.012*	1.288
Financial leverage	0.066	0.415	0.755	1	0.055	1.444
Market-to-book value	0.214	0.366	1.774	1	0.023*	1.218

\* Error level of 5%

According to Table 3, the chance ratio for the variable of institutional investor ratio of the company is 0.333 showing that effect of ratio of institutional investor of the company is negative on the companies' financial health so that the higher the ratio of institutional investors in companies, the less the financial health promotion. The significance level of Wald statistics (0.241) suggests that this variable is not significant at the 5% level of error and it cannot be rejected the hypothesis  $H_0$  at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between the ratio of institutional investors and the financial health promotion.

### 3.3. Second hypothesis testing:

**Table 4:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	0.640	0.421	0.315	1	0.415	1.145
Ratio of non-bound managers to all members of the board	0.289	0.214	0.775	1	0.355	1.663
Firm size	-0.116	0.509	2.221	1	0.002*	0.478
Financial leverage	0.721	0.506	1.750	1	0.023*	2.033
Market-to-book value	0.669	0.487	0.548	1	0.391	1.703

\* Error level of 5%

According to Table 4, the ratio of chances for the variable of ratio of non-bound managers to all members of the board of the company is 0.1663, showing that effect of the ratio of non-bound managers to all the board members in the company is positive on the financial health promotion so that the higher the ratio of non-bound managers to all the board members, the greater the company's financial health promotion. Significance level of Wald statistic (0.355) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between the ratio of non-bound managers to all the board members and the financial health promotion.

### 3.4. Third hypothesis testing:

**Table 5:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	0.225	0.515	2.145	1	0.014*	1.745
CEO duality	-0.199	0.215	0.962	1	0.165	0.758
Firm size	-0.552	0.178	1.224	1	0.074	0.521
Financial leverage	-0.207	0.623	1.962	1	0.026*	0.665
Market-to-book value	0.421	0.158	2.326	1	0.003*	1.996

\* Error level of 5%

According to Table 5, the ratio of chances for the variable of CEO duality of the company is 0.758, showing that effect of CEO duality in the company is negative on the financial health promotion so that the higher the CEO duality, the greater the company's financial health promotion. Significance level of Wald statistic (0.165) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between CEO duality and the financial health promotion.

### 3.5. Fourth hypothesis testing:

**Table 6:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
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Fixed coefficient	0.559	0.157	1.748	1	0.042*	2.332
Independent audit type	0.124	0.552	2.013	1	0.009*	1.254
Firm size	-0.421	0.415	0.578	1	0.421	0.421
Financial leverage	-0.069	0.216	0.955	1	0.329	0.518
Market-to-book value	0.326	0.514	1.412	1	0.074	1.169

\* Error level of 5%

According to Table 6, the ratio of chances for the variable of independent auditor type of the company is 1.254, showing that effect of independent auditor type in the company is weakly positive on the financial health promotion so that the higher the independent auditor type, the greater the company's financial health promotion relatively. Significance level of Wald statistic (0.009) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between independent auditor type (public and private) and the financial health promotion. Resultant model of these test findings is as follows:

$$Y = 0.559 + 0.124AUD - 0.421SIZE + 0.326\frac{M}{B} - 0.069LEV + \varepsilon_{it}$$

### 3.6. Fifth hypothesis testing:

**Table 7:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	0.224	0.514	0.965	1	0.252	1.754
Percent of float shares	-0.415	0.263	1.241	1	0.102	0.415
Firm size	-0.047	0.625	2.326	1	0.006*	0.622
Financial leverage	0.162	0.259	2.015	1	0.012*	1.218
Market-to-book value	0.333	0.416	1.142	1	0.069	1.625

\* Error level of 5%

According to Table 7, the ratio of chances for the variable of float share percent is 0.415, showing that effect of float share percent in the company is negative on the financial health promotion so that the higher the float share percent, not greater the company's financial health promotion. Significance level of Wald statistic (0.102) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between float share percent and the financial health promotion.

### 3.7. Sixth hypothesis testing

**Table 8:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	0.185	0.415	0.955	1	0.248	1.415
Ownership type (public and private)	0.333	0.258	2.174	1	0.005*	1.477
Firm size	-0.175	0.069	1.269	1	0.196	0.296
Financial leverage	-0.009	0.412	2.326	1	0.006*	0.335
Market-to-book value	0.196	0.396	1.578	1	0.047*	1.274

\* Error level of 5%

According to Table 8, the ratio of chances for the variable of ownership type is 1.477, showing that effect of ownership type in the company is positive on the financial health promotion so that the higher the float share percent, the greater the company's financial health promotion. Significance level of Wald statistic (0.005) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between ownership type and the financial health promotion. Resultant model of these test findings is as follows:

### 3.8. Seventh hypothesis testing:

**Table 9:** The research variables condition at the model

Variables	B	S.E.	Wald	df	Sig.	EXP (B)
Fixed coefficient	0.478	0.147	1.485	1	0.062	1.154
The company of major or minor	0.241	0.152	1.145	1	0.082	1.557
Firm size	-0.266	0.326	1.025	1	0.089	0.745
Financial leverage	-0.196	0.258	0.596	1	0.254	0.556
Market-to-book value	0.411	0.142	1.755	1	0.044*	1.225

\* Error level of 5%

According to Table 9, the ratio of chances for the variable of the company of major or minor is 1.557, showing that effect of the company of major or minor in the company is positive on the financial health promotion so that the higher the float share percent, the less the company's financial health promotion.

Significance level of Wald statistic (0.082) suggests that this variable is not significant at the 5% level of error and hypothesis  $H_0$  cannot be rejected at the confidence level of 95%. Thus, it can be concluded that there is no significant relationship between the company of major or minor and the financial health promotion.

#### 4. Conclusions and Recommendations:

At the first hypothesis, the results showed that further presence of institutional investors would not change the company's financial health. Also, the companies who owned institutional investors more than 50% of the company's share have had no impact on the financial health of the company than the companies that are less than 50% of institutional investors. The result of this study is inconsistent with the results of Jensen, Chung and Kwayer [2] and Kapoupoules. At the second hypothesis, the results showed that by changing the ratio of non-bound managers to all the board members, financial health of the companies will not change. The test result is inconsistent with the results of Chung and Kowayer in China and Lakshan and Vijikan in Sri Lanka. At the third hypothesis, the results showed that the CEO duality will not change the financial health of the companies. That is, in the companies where the CEO is not the chairman of the board it has no significant impact on the financial health and being healthy. The result of this test is alike to the result of Lakshan and Vijikan [8] and contrary to the results of Dounalsoun and Eocene and Cheung and Kwayer.

At the fourth hypothesis, the results showed that the effect of the independent auditor's role (public and private) makes changes in the company's financial health. This result contradicts the result of Lakshan and Vijikan [8], because they stated that the auditors' characteristics and comments do not influence on bankruptcy prediction. According the results of the fifth hypothesis, the financial health of the company would not be changed when changing in percent of the float share. The result of this test suggests that whatever the float share percentage of a company's goes up, the financial health of the company doesn't go high. The result of this test is the same as result of Nikoomaram & Pourzamani [12]. Well, at the sixth hypothesis the results showed that the companies' ownership (public and private) changes the company's financial health. This means that the private-owned companies have greater financial health, compared with the state-owned companies. Finally, the results, at the seventh hypothesis, showed that the companies of major and minor have no impact on their financial health. The study yielded similar results when researching by Nikoomaram & Pourzamani [12] which suggests there is no significant relationship between ownership structure and the bankruptcy prediction, at the companies.

As well, given the variables and the impressive ratios determined for recognition of the different financial health in this study based on a number of factors of the corporate governance including the type of ownership, the independent auditors type, the company of major and minor and components of intellectual capital (on Palik's model), it is recommended since these variables are not presented in the outputs of a financial accounting system, accountants in providing explanatory and attached notes of the financial statements calculate and disclose all variables, in particular, components of intellectual capital including the efficiency of human capital, structural capital efficiency and performance of physical capital is.

#### REFERENCES

- [1] Afsharipour, A., 2009. Corporate Governance Convergece: Lessons from Indian Experience. *Northwestern Journal of International Law & Business*, 12(5): 335-402.
- [2] Chong-En Bai, Qiao Liu, Joe Lu, Frank M. Song, and Z. Junxi, 2002. Corporate Governance and Firm Valuations in China. Working paper, the University of Hong Kong.
- [3] Ghanbari, F., 2007. Examining the impact of corporate governance mechanisms on the performance of companies listed in Tehran Stock Exchange. MS Thesis, University of Al-Zahra.
- [4] International Monetary Fund (IMF). 2000. Financial Sector Assessment Program-(FSIP). A review Lessons from the poilt and issues going forward, IMF SM/00/263.
- [5] Hasasyeganeh, Y., 2009. Lasting and corporate governance. *Journal of Accounting*, 21(9): 16-36.
- [6] Hasasyeganeh, Y., Y. Shiri and Y. Mohammadi, 2007. Corporate governance, privatization and its effects. *Accountant twenty-third year*, 15(4): 55-66.
- [7] Jung Ho, L., C. Liyu, 2014. The valuation effect of corporate governance on stakeholder wealth. *International Review of Economics and Finance*, 32(9): 117-131.
- [8] Lakshan, A.M.I., and W.M.H.N. Wijekoon, 2012. Corporate governance and Corporat Failur. *Procedia Economics and Finance*, 22(7): 191-198.
- [9] Mohammad zadeh Salteh, H., 2010. Presenting a model to explain the relationship between corporate governance and earnings quality, PhD thesis, Science Accounting, Islamic Azad University of Tehran, Science and Research Branch, Advisory by Dr. H. Nikoomaram.
- [10] Mehrarani, S., 2005. Evaluation of bankruptcy prediction models of Zimenesky and Shirata in Tehran Stock Exchange. *ACCOUNTING AND AUDITING REVIEW magazine*, 19(8): 105-131.
- [11] Naidoo, R., 2007. A predictive model of the states of financial health in South African Businesses. Ph.D.dissertation, University of South Africa, Johannesburg.

- [12] Nikoomaram, H., M. Pourzamani, 2006. Corporate Governance and Corporate Bankruptcy Prediction" PhD thesis, Islamic Azad University of Tehran, Science and Research Branch.
- [13] Namazi, M., E. Kermani, 2008. Impact of ownership structure on the performance of listed companies in Tehran Stock Exchange. *Journal of Accounting and Auditing Review*, 9(14): 39-65.
- [14] Pooja, G., and M. Aarti, 2014. A study of the impact of Corporate governance practices on firm performance in Indian and South Korean Companies. *Procedia Social and Behavioral Sciences*, 133(29): 4-11.
- [15] Rahnamayeh Roudpoushti, F., A. Salehi, 2010. Finance and Accounting Schools and Theories," Vice Chancellor for Research, Islamic Azad University, and Central Tehran Branch: Publication of Islamic Azad University, Central Tehran Branch.
- [16] Taghavi, M., M. Pour Ali, 2010. Analyzing financial ratios in determining financial health levels for manufacturing units of Iran. *Financial Studies*, 8(3): 17-39.