The effect of some of the Corporate Governance Components on the Financial Distress of the Enterprises

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ABSTRACT

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Profit is one of the main criteria of accounting, which is always taken into consideration for different purposes such as evaluation of the Return on Equity and management performance of the enterprises. Until the last few years, in most of the studies which are conducted on the effects of the accounting profit on the price or Return on Stock, enough attention was not paid to the profit quality. But in recent years, and after bankruptcy of some of large companies in the world, financial researchers and authors shifted their focus from the amount of the profit toward the profit quality. Considered the bankruptcy as an important issues in the financial management, because identification of the reasons of the bankruptcy and complete understanding of that by the management is really necessary, and can lead prevent from failure of the enterprise before bankruptcy by providing solutions for this problem. Because of the importance of the necessary mechanism and achieving desired profit quality, most of societies attempted to provide this mechanism. One of these mechanisms is providing a proper management system in enterprises and corporations, which most nations and countries tried to develop and improve this system. One of the reasons which lead to take the corporate governance into consideration is increase in crimes and financial distress all over the world. The main reasons which show the importance of the corporate governance: 1. Privatization process and investment based on the market 2. Technologic developments and financial markets and trade liberalization 3. Investment movement from the private investment toward the corporate investment 4. Increase in the financial solidarity and working of the investments and trades. Corporate Governance is the collection of the processes, manners, policies and regulations which affect the method of managing an enterprise. The importance of the corporate governance simply is governance of the public wisdom in the critical issues of the enterprise. Main active people in the corporate governance are the CEO, share holders and members of the board of the directors. Therefore in the present study we try to discuss the profit management and some of components of the corporate governance, as well as the relation between these two factors and the bankruptcy of the enterprises

INTRODUCTION

Study Background:

In a study conducted with this title, the evaluation of the profit management in the accepted enterprises in Tehran Stock Exchange, they made these conclusions. In this study, how the accepted enterprises in Tehran Stock Exchange between 1997 and 2003 manage their profits, is investigated. The results of some other studies conducted in the other countries, revealed the improper management of the profit and desired results for the management. The profit management is investigated by some parameters such as size, liability to capital ratio and effective tax rate. The results of this study show that large enterprises in Iran, try to use from profit management policies and the reason of using this management approach is an increase in the liabilities. Also these findings reveal that the managers of these large enterprises use from accruals in order to reduce their enterprise taxes. Along with enlargement of the enterprises, the tendency of profit management by the managers increases. This study is the first study which tries to investigate the profit management in the Iranian Enterprises by Jones method and by using from the accounting indexes. [4]

In a study with this title, the evaluation of the profit management in the time of the initial offering the sticks to public in the accepted enterprises in Tehran Stock Exchange, they concluded that Jones Balanced Model for 30 enterprises which offered their stocks to the public for the first time between 2008 and 2001 is investigated. The results obtained from this study reveal that managers in these enterprises manage the profit of the enterprise...
in year before the initial stock offer and the year of the initial public stock offer. Also the effect of the profit management on the long term Stock Price Return of the offering enterprises is investigated. The results of this study show that there is a positive relation between the arbitrary current accruals in the first year and the long term Stock Price Return in next three years [5].

In a study with this title, The evaluation of the effect of the organization share holders as one of the corporate governance criteria, on the Return on Shareholders' Equity of the accepted enterprises in Tehran Stock Exchange, they concluded that because of the presentation problems, the managers tend to not use from the company's resources for increasing the wealth of the share holders. Today, authors believe that the corporate governance is the best solution for this problem. The corporate governance includes criteria which can increase decentralization in the enterprise management, and in this way, using from the managers' authority for their personal benefits will decreased. Attendance of the organizational share holders in the enterprise, with potential capability of controlling the mangers, is one of the most effective criteria in this field. The aim of this study is to evaluate the effect of the organization share holders as one of the most important corporate governance criteria on the Return on the Shareholders Equity. For this purpose, the 5-year information (2003/1993) of 2010 enterprises was investigated, and by regression method, the study hypotheses were analyzed. The results of this study reveal that although the organization ownership in accepted enterprise in Tehran Stock Exchange is very high, but there is no significant relation between the organizational share holders and Stock Returns. While according to the obtained results in the other countries, there is a positive or even negative relation between these factors. [6]

In a study with this title, The Effect of the Arbitrary Accruals on the Profit Management in Accepted Enterprises in Tehran Stock Exchange, they concluded that literature review related to the enterprise profit shows the authors' attempts in order to understand why managers try to manipulate the profit, how they manage the profit and what are the results of these behaviors. The large number of the empirical studies in the area of the accounting and the financial reporting is allocated to the answers to these questions. Because the case obtained from activities is less vulnerable to manipulation of the managers, so the business performance of the enterprise is considered as the main factor in this research. Therefore it is accepted that weak enterprises, which their reported obtained cash is low, for misdirection of the market or other reasons, by increasing the arbitrary accruals, increase their reported profit [7, 8, and 9].

In the other words, a significant and reverse relation is accepted between the obtained cash and the arbitrary accruals. Therefore in this study, the relation between the arbitrary accruals and the obtained cash from activities is investigated. Manufacturing enterprises which are accepted in Tehran Stock Exchange, are the statistical population if this study. The results of this study reveal that in the studied enterprises, the profit management is used. Actually, the managers of these enterprises, when the obtained cash decreased (which shows the weak performance of the business enterprise), in order to compensate this problem, increase their profit by an increase in the arbitrary accruals. [10]

In a study with this title, Work and Corporate Governance: international evidences about decisions, the obtained results show the importance of the reactions between the managers, work and the investors in forming the corporate governance. They found that strict union regulations, not only support stockbrokers (brokers) but also will control the managers too. Supporting the weak investors which are joined to the union regulations, leads to joining the worker and the manager, and in this sense, by selling the assets by weak enterprises, larger and greater failures and destructions are avoided and the worker supports the manager. Selling the assets in countries which support the weak investor, leads to weaken the performance, while in countries which support the strong investor, the performance will increase and the unemployment rate will be higher. The strict regulations of the Union, when the financial power is strong, have a negligible effect on the failure of the business. [11, 12]

Liu and Miao (2006)[9]: In a study with this title, Management priorities, Corporate Governance and the Financial Structure, they concluded that unbalanced and unequal benefits of the organization members (Like Control Share Holders) and other members (Like weaker Share Holders), should be considered in analyzing the modern enterprises. In a mixed framework of Routine Random Demands, faulty corporate governance investigates the best selection of the Control Share Holder, Capital Structure, Ownership Focus, and Change in Private Profit, Consumption and Financial Market Investment. About the definite parametric forms, some solutions are found associated to the numerical combinations. In addition, according to the empirical evidences, they concluded that the priority attributes of the management (Such as hate from the Risk and hurry), Corporate Governance and the Financial Market are from the determinant factors for defining the stock price, dividing the cost credits of the organization, capital structure, bankruptcy and the focus of the ownership. In this model, many mentionable and comparable new predictions and empirical results are present. [13, 14, 15]

In a study with this title, Financial Decisions, Ownership and Governance in Corporate Credit; they investigate the empirical results and they findings support the relation between the liability and the profit according to the credit creation for the enterprise, and also a negative relation between the corporate credit and
manipulation the payment of the stock profits during the success of the enterprise is found. The effect of the ownership structures on allocation and apportionment of the corporate resources is verified too. [16]

In a study with this title, Corporate Governance, Financing Patterns and The Capital Expenditure: Evidences from the New Zealand Enterprises, they used a unique self motivated criterion for Corporate Governance and also Fama - French Model (1991), and they concluded that the enterprises with weaker corporate governance mechanism in comparison to stronger mechanism, have more imposition capability. After controlling these effects on the Corporate Governance components, they found that enterprises with different levels of the corporate governance use different mechanisms of corporate governance for the financial policies. In addition, they found that the enterprise can regulate and manage their imposition power as a governance mechanism, by using from compensation policy and Return on Equity. It seems that the member s of the board of the directors, when other governance mechanism of the company are ineffective, impose on the company, which has a negative relation with the financial distress. [17, 18, 19]

In a study with this title, Corporate Governance and the Changeability of the Capital Markets: Brazil Case Study; The objective of selecting Brazil as a Case Study is investigating higher effect levels of governance on the periodic changeable structure of the Stock. In term of the Methodology, two daily return criteria for the Brazilian Stock Exchange (I.E.P.G.I and I.E.P.G.S) were defined and the periodic changeable structure and its conformity with the G.A.R.S.H model were analyzed. The statistical results were very significant and the following issues were verified: 1. higher level of the governance has a positive effect on increase of the long term and short term changeability. 2. The changeability of the enterprises with the worst kind of the corporate governance has more reaction against the trades. 3. Changeability stability of the enterprise with a proper governance pattern is worse in comparison to the enterprises which have the worst pattern of the governance. 4. The Convergence rate for the changeability of the enterprises with proper governance patterns is lower in comparison to the enterprises with the improper governance patterns. 5. Presence of the Information Inequality or Imposition, affects the enterprises with the worst corporate governance pattern more than the enterprises with a proper corporate governance. [20, 21, 22]

In a Study with this title, Will the management of the Under Pressure enterprises be able to save them from the Bankruptcy? According to the obtained results, the 20-30% differences in the management attributes, justifies the bankruptcy. Smaller and more independent boards, with more foreign managers and ownership of the internal managers, can execute better when the enterprise is in the distress condition in order to save the company from the bankruptcy. In this study, you will see that these attributes of the management team will improve the prediction capability of the bankruptcy models. And this result should be considered by academics, corporate management teams, authorities, credit ranking agencies and financial organizations[23, 24].

MATERIALS AND METHODS

The present study is an applied research in terms of the objective, and is categorized as a descriptive research in terms of the methodology, and from the descriptive researches it is a correlational research. In the present study the periodic and sectional behavior of 95 enterprises was investigated. Therefore the simple and multi-variable regression method was used for analyzing the hypotheses. In order to analyze the collected data, the Excel Software is used and for analyzing the hypotheses of the research and also the complementary test for validating the Regression Model, SPSS regression was used. The required data for testing the research hypotheses includes different components of the Profit and Loss Statement, Cash Flow Statement, and Balance Sheet with descriptive notes and other information such as annual reports of the management activities, Report of the Share Holders General Assembly, The Share Price and The Share Profit of the studies enterprises. The required information for the present research were collected and extracted from Tehran Stock Exchange CDs and Official Web Site of the Tehran Stock Exchange. Albeit the Tadbir Paraz and Dena Sahm Databases can be used for this purpose too.

Statistical Population:
The accepted enterprises in Tehran Stock Exchange were selected as the statistical population, but some of them were omitted according to the following reasons: The enterprises should not be from finance and investment and financial intermediation companies. Esfand Month should be the end of their Financial Year.

Research Scope:
The evaluated enterprises are selected by a simple random method.
Place Scope: Accepted Enterprises in Tehran Stock Exchange

Research Hypotheses:

With regard to the objectives and questions of the research, main and complementary hypotheses are defined as follow:

1. There is a significant relation between the Profit Management Criterion and Bankruptcy of the Enterprise according to the Fulmer Model.
2. There is a significant relation between the Corporate Governance Parameters and Bankruptcy of the Enterprise according to the Fulmer Model.
   2.1. There is a significant relation between existence of an internal auditor in the enterprise and Bankruptcy of the enterprise.
   2.2. There is a significant relation between existence of Major share holder in the enterprise and Bankruptcy of the enterprise.
   2.3. There is a significant relation between the non responsible member's ratio of the board and Bankruptcy of the enterprise.

Research Variables:

Independent Variables:

1. Profit Management Variable:

   In order to measure the profit management the adjusted Jones Model is used. Jones has defined the difference between the operational profit and the cash obtained from activates as the accruals. In this approach, the main idea is it that the available data about the obtained cash is a more objective measure for evaluate the real business performance and profitability of the business company. And therefore this measure is less vulnerable to be manipulated by the management. Jones in the model proposed in 1991 for evaluation of the profit in business companies, assumed that non-arbitrary accruals are fixed and constant over time. In this model which tries to distinct between arbitrary and non-arbitrary accruals, attempts are made for estimate the effect of the financial conditions of a business company on the accruals in a defined time, which is known as event period, by using from sale, assets, machineries and equipments variables. This estimation is done as follow:

   \[ \frac{TA_t}{A_{t-1}} = \alpha_1 \left( \frac{1}{A_{t-1}} \right) + \alpha_2 \left( \frac{\Delta REV_t}{A_{t-1}} \right) + \alpha_3 \left( \frac{PPE_t}{A_{t-1}} \right) + \epsilon_t \]

   In this formula, TA is the total accruals, A is the Total Assets, \( \Delta REV \) is the sale income changes and PPE is assets, machineries and equipments. After estimation of the above mentioned model's parameters, and by using from the information obtained for the period between 2001 and 2006 for each of the enterprises, the Non-arbitrary accruals for the estimation period (2007) were calculated by using from time series models as follow:

   \[ NDA_t = \alpha_1 \left( \frac{1}{A_{t-1}} \right) + \alpha_2 \left( \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right) + \alpha_3 \left( \frac{PPE_t}{A_{t-1}} \right) \]

   In which \( \Delta REC \) are the changes in demands?

   Finally in the last step, the arbitrary accruals or profit management index is calculated as follow:

   \[ DA_t = \frac{TA_t}{A_{t-1}} - NDA_t \]

   In which DA is the arbitrary Accruals.

   In should be mentioned that according to theoretical principles, the total Accruals can be calculated from one these two methods based on the available information. In the present study we used from 3-4 formula which calculated the total accruals as the difference between the net profit and cash obtained from activities.

   \[ TA = E - OCF \]

   \[ TA = (\Delta CA - \Delta CASH) - (\Delta CL - \Delta STD) - DEP \]

   In the above formula, E is the net profit before accidental items and OCF is obtained cash flow from the activities (According to accounting standards of Iran), CA is current liabilities and \( \Delta CASH \) is the changes of the Cash Flow, \( \Delta CL \) is the changes of the current liability and \( \Delta STD \) is the changes of the long term current liabilities, finally DEP is the depreciation factor.

2. Corporate Governance Parameters:

The responsible member's ratio of the Board of the Directors: This value is equal to the ratio between the responsible and active members of the Board and the total number of the Board Members.

The Non-responsible member's ratio of the Board of the Directors: This value is equal to the ratio between the Non-responsible members of the Board and the total number of the Board Members.

Existence of major Share Holder: Centralization Level of the Corporate Ownership: Ownership Centralization is the distribution of the shares between share holders of various enterprises. The less number of the share holders, the more centralized ownership is achieved. In the present study in order to calculate the ownership centralization ratio, the Herfindal - Hirschmaan Index is used. The mentioned Index is calculated by the total square of the share percents for the share holders of the companies. By increasing the ownership centralization, this index increases, and in a situation which total shares are allocated to one person, the higher value for this index is achieved and it is equal to 10000 Units. When the ownership structure is distributed and sparse, and all of the share holders have the equal shares, HHI Index will have the smallest value and will be calculated equal to 10000/N.

\[ \text{HHI} = \sum \left( \frac{p_i}{\bar{p}} \right)^2 \]

Dependant Variables:
1. Bankruptcy Variable:
   It is the bankruptcy index for an enterprise which is calculated by the Fulmer Model (The most Known and Common Model for Measuring the Bankruptcy)

The Fulmer Model for an enterprise is calculated as follow:

\[ F= 5.5X_1 + 0.212X_2 + 0.073X_3 + 1.27 X_4 - 0.12X_5 + 2.35X_6 + 1.082X_7 + 0.485X_8 + 0.575X_9 \]

where:
- \( X_1 \): Retained Profit / Total Assets
- \( X_2 \): Sale / Total Assets
- \( X_3 \): The Profit before Tax / Return on Equity (ROE)
- \( X_4 \): Cash Flow / Total Liabilities
- \( X_5 \): Liabilities / Total Assets
- \( X_6 \): Current Liabilities / Total Assets
- \( X_7 \): Logarithm of the Total Tangible Assets
- \( X_8 \): Logarithm of (Financial Costs or Expenditures / the Profits before Tax and Interests)
- \( X_9 \): Working Capital / Total Liabilities

If the calculated index is less than Zero, then enterprise will be categorized as bankrupted.

Control Variable:
Ownership Structures for the Enterprises:
According to Law, if more than 50% of the corporate share, directly or indirectly, is owned by the government, then that enterprise is considered as a governmental (State) corporation, otherwise they are categorized as privately held corporation. 1 is assigned to state corporations and 0 is assigned to privately held corporations.

The Analyze and Test of the Statistical Hypotheses:
In order to test the research hypotheses, descriptive and illative statistics and correlation analyze method are used. These methods are as follow:
A. Homogeneity of Variance
B. Normality
C. Independency of the Remainders
D. Linearity Assumption Test
E. Correlation Analyze

Results:
The results obtained from the first hypothesis test: As it was mentioned before, the first hypothesis says that there is a significant relation between the Management Profit Index and the Bankruptcy Index of the Company according to the Fulmer Model. In order to test this hypothesis, after measuring the profit management, the Bankruptcy Index was calculated by Fulmer Model, and then the correlation between these two variables was investigated.

The correlation coefficient for the profit management and the bankruptcy is -0.006 which shows a negative relation, and with regard to the sig=0.40 which is larger than 5 percents, this relation is not significant. It means that H0 and H1 are rejected. Therefore there is no significant correlation between the bankruptcy and the profit management. And with regard to calculated determination coefficient which is equal to 0.000, this value is very small which show this model is not suitable to attribute the profit management changes to the bankruptcy.
And with more than 95% confidence, it can be said that linearity of the regression model is not verified. It means that the obtained results support the rejection of this hypothesis, or in the other words, the regression model cannot explain the changes in the dependant variable.

Table 1: The summary of the obtained results from modeling and conducted experiments in order to investigate the research hypotheses by the multiple simultaneous model.

<table>
<thead>
<tr>
<th>Research Hypotheses</th>
<th>Standard Slope Coefficient (β)</th>
<th>The Probability of the Independent Variable</th>
<th>Correlation Type</th>
<th>Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Hypothesis 1</td>
<td>-.006</td>
<td>0.479</td>
<td>Reverse</td>
<td>Rejected</td>
</tr>
<tr>
<td>Main Hypothesis 2</td>
<td>0.397</td>
<td>0.003</td>
<td>Direct</td>
<td>Verified</td>
</tr>
<tr>
<td>Complementary</td>
<td></td>
<td></td>
<td>Direct</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hypothesis 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complementary</td>
<td></td>
<td></td>
<td>Direct</td>
<td>Verified</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>0.285</td>
<td>0.010</td>
<td>Direct</td>
<td></td>
</tr>
<tr>
<td>Complementary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>0.239</td>
<td>0.24</td>
<td>Direct</td>
<td>Verified</td>
</tr>
</tbody>
</table>

Therefore, totally about the first hypothesis, we make this conclusion that the existence of the correlation between the profit management and the Bankruptcy Index based on the Fulmer Model is rejected. There is no significant relation between the variables of this hypothesis and this is not verified. With regard to this fact that in past the correlation between the profit management and the parameters of the corporate governance on the bankruptcy has not been investigated in this manner and by these indexes, the results obtained from the present study, were compared to the results obtained from similar domestic and foreign studies. Some of these studies are discussed in the following: Norvash, Sepasi and Nikbakht, made this conclusion that there a positive and significant relation between the profit management and the bankruptcy of the company. Chrietto and Lora also found a significant relation between the profit management and the bankruptcy index. Rasni found a reverse and significant relation between the profit management and the bankruptcy. In the same way, Bilderbik and Pompef found that in companies which move toward bankruptcy, the profit management increases.

The results obtained from the first hypothesis test: The second main hypothesis says that there is a significant correlation between corporate governance parameters and the Bankruptcy Index according to the Fulmer Model. Which this hypothesis is divided to 3 complementary hypotheses:

First Complementary Hypothesis:
This hypothesis says that there is a significant correlation between the non-responsible members of the board and the bankruptcy of the company. The results of this test, show that the level of significance (p-value) is 0.245 which is greater than 5%, therefore with 95% level of confidence, the significant correlation between the bankruptcy and the non-responsible members of the board, was not verified. Although by analyzing the regression model separately, the correlation between the bankruptcy and the non-responsible members of the board was verified. But the simultaneous results are more valid and preferable, and because of this fact the effects of all of the variables were investigated simultaneously; as we know, it is possible that an individual variable is significant, but in general the hypothesis is rejected. It means that some of the variables affect each other, and neutralize the effects of other variables, just the same as happens about the non-responsible members.

According to the obtained results from the statistical tests, the bankruptcy of the company is affected by the existence of the internal auditor and the level of the ownership centralization.

Second Complementary Hypothesis:
This hypothesis says that there is a significant correlation between the existence of an internal auditor and bankruptcy of a company. At 5% error level, the significance level was 1% which was smaller than 5%, so with 95% of level of confidence, this hypothesis verified the correlation between the internal auditor and the bankruptcy of a company. Higher level of determination for the correlation between the existence of the internal auditor and the bankruptcy, shows that the bankruptcy index is more affected by this variable (Internal Auditor) in comparison to the other variables; and this direct correlation was verified in separated regression tests and it was shown that the correlation between these two variables is significant and positive. It means the higher level of the existence of the internal auditor, leads to higher level of bankruptcy and vice versa.

Third Complementary Hypothesis:
This hypothesis says that there is a significant correlation between the ownership centralization and the bankruptcy. At 5% error level, the significance level (p-value) was 0.024 which was smaller than 5%, so with 95% of level of confidence, this hypothesis verified the correlation between the ownership centralization and the bankruptcy of a company. It means the higher level of the ownership centralization, leads to higher level of the bankruptcy and vice versa. But because low value of the determination coefficient, this conclusion was made that the role of the ownership centralization is negligible in the bankruptcy of the enterprise, and most of the
bankruptcies are due to other factors; on the other hand, in the multiple regression model which investigate the correlation between the governance parameters and the bankruptcy, because the standard slope coefficient or β-value for the ownership centralization is less than this value for the internal auditor, then the internal auditor variable is more effective than ownership centralization level.

Totally, although there are significant correlations between the internal auditor and ownership centralization indexes with the bankruptcy of the company, but because the determination coefficient in the multiple regression model is very low (0.157), and also because of the low independent coefficients in this model, this conclusion is made that the corporate governance role is negligible in the bankruptcy of the enterprises, and most the bankruptcy changes are results of the other parameters such as inefficient management, inadequate capital, Infidelity, cheating and business fluctuations, and so on

Conclusion:
As it was mentioned before, because the bankruptcy is an important issue in the capital market, so investigating the affective factors and parameters on that is determinant and important too, and if these parameters can be managed correctly, then the decisions made by share holders and investors are correct. In the present study the effect of the profit management and corporate governance parameters on the bankruptcy of the enterprise was investigated by Fulmer Model and the following results and findings are achieved:

The results obtained from the first hypothesis reveal that the profit management, according to the Fulmer Model, has no effect on the bankruptcy.

The results obtained from the second hypothesis reveal that the corporate governance according to the Fulmer Model, affects the bankruptcy and generally there is a significant and linear correlation between these variables, and this fact divided the second hypothesis to three complementary hypotheses.
According to the Fulmer Model, the responsible members affect the bankruptcy.
According to the Fulmer Model, the existence of the internal auditor affects the bankruptcy.
According to the Fulmer Model, the ownership centralization ranking affects the bankruptcy.

But simultaneous results of these three parameters (Non-responsible Members - Internal Auditor - Ownership Centralization Ranking) on the bankruptcy, reveal that the non-responsible members have no effect on the bankruptcy, but internal auditor and the ownership centralization ranking, according to the Fulmer Model, affect the bankruptcy. By investigating the β values, it was revealed that β values for internal auditors and ownership centralization ranking parameters, is larger in comparison to β value for the non-responsible members parameter. And this result defines the more significant effects of the two former parameters on the bankruptcy; and finally because the larger β value shows the more significant effects, then the internal auditor with the larger value of β, is more effective than ownership centralization ranking parameter.

REFERENCES