

The relationship between some corporate regulatory governance tools and economic and financial criteria used for performance evaluation

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Abstract

There are different methods and criteria for evaluating corporate performance. In this study we try to investigate the relationship between corporate regulatory governance tools and economic and financial criteria used for performance evaluation of companies accepted in TSE. A sample of 3 companies were selected whose information for a research period of five years (2010-2014) was accessible. Given the previous research, a number of performance evaluation criteria were used in the present study as independent variables, including the rate of return on assets and Tobin Q as economic measures of performance evaluation. Then, the data related to independent variables including two criteria from corporate regulatory governance tools (i.e. the percentage of non-bound members of the board of directors and the number of institutional investors) were examined through the study. In order to test the hypotheses, multivariate regression techniques were used. Regression test using the combined data was used in this study. Statistical tests were performed by two multivariate models (i.e. a model used for each performance evaluation criterion). The results of the study indicated that corporate regulatory governance tools are significantly correlated with all performance evaluation criteria.

Keywords: corporate governance system, Tobin Q, rate of return on assets.

1-Introduction

Capital market plays a vital role in national economy. This market not only sets in motion money and inactive capitals within firms but also it serves as countries' economic prosperity index. As a result, it is essential to pay more attention to this market and main decision making principles used by it. Obviously, the main goal of investments made by investors in a given company is to make profits commensurate with their investments. If the company is successful in value creation, not only investors and members of companies, but also at a broader scale, the community as a whole will benefit from such investments. Given the significance of capital market, performance evaluation in the decision making process is one of the most important issues in the field of financial economics. As a result, economic and financial criteria used to evaluate corporate performance are of high importance. With the emergence of separation of ownership from management and appearance of conflict of interests between owners and managers, companies' performance evaluation came to forefront for various groups such as creditors, owners, governments, and even managers (Jensen and Meckling, 1976). Corporate governance system has been created to provide the possibility of control and creating a balance between managers' and stockholders' interests and to decrease the agency conflict between them. Therefore, those companies that have a higher quality of corporate governance system are less likely to face the problem of agency conflict (Kashani Poor and Rassaeian, 2008). The main purpose of the present study is to investigate the relationship between quality of corporate governance system and criteria used for performance evaluation of companies including rate of return on assets in Tehran's Stock Exchange.

2-Literature review

Kashani Poor and Rassaeian (2007) have classified different methods of performance evaluation from an economic viewpoint into four groups as follows:

- a) Methods in which accounting information such as financial ratios are used for performance evaluation.
- b) Methods consisting of a combination of accounting information and market data to be used for performance evaluation, such as different versions of Tobin Q or P/E ratio.
- c) Ratios in which financial management data are employed such as returns and excessive returns on each stock.
- d) Ratios that despite the use of accounting information are considered as economic criteria, such as Market Value Added (MVA), Economic Value Added (EVA), and Refined Economic Value Added (REVA).

Of the important criteria for corporate governance whose effects on companies' performance have been investigated in many studies, we can refer to the percentage of the non-bound managers and the number of institutional investors. From a theoretical agency viewpoint it can be assumed that duty free managers are responsible for supervising other members of the board of directors. Without non-bound managers' supervisory role, it is likely that responsible managers abuse their positions. A number of scientific studies have shown that the supervisory role of non-bound managers has been effectively applied. Overall, it seems that most of the evidence supports the regulatory role of non-bound managers (Hassas Yeganeh & Pouria Nasab, 2005). Shareholders, particularly institutional investors play an important role in corporate governance system as well. Institutional investors can monitor the company's management and their influence on company's management can serve as a basis for the alignment of management interests with shareholders' interests in order to maximize shareholders' wealth. In financial

literature, ownership concentration is regarded as an important mechanism which controls agency problems and supports investors' interest (Kordtabar, 2008).

Qoaray and Qonzalez (2008) has investigated the relationship between corporate governance and performance evaluation criteria such as percentage of dividends, P/B ratio (market value to book equity value) and Tobin Q in the Venezuelan Stock Market. The results of their study indicate that an increase in the corporate governance index will lead to a 11.3% increase in dividends, 9.9% increase in the P/E ratio, and a 7.2% increase in the Tobin Q, respectively. Larcker *et al.*, (2007) investigated the relationship between accounting and economic indices used for performance evaluation and the quality of corporate governance system in a sample of 2106 American firms. They considered 39 criteria (including characteristics of the board of directors, ownership structure, institutional shareholders, CEO bonuses, etc.) for corporate governance system. The results of their study indicated that corporate governance system does not have a single distinct dimensions but encompassing a number of different dimensions, which results in to inconsistent results about the relationship between corporate governance system and criteria used in corporate performance evaluation. Ricardo *et al.*, (2005) found that there is a significant positive relationship between the corporate governance system and Tobin Q in the Brazilian Stock Exchange in the time period of 1998 to 2002.

Recent empirical research suggested some evidence, confirming a positive relationship between company performance and the quality of corporate governance system. Drobetz *et al.*, (2004) explained the fact that the quality of corporate governance system can account for the firm's performance. They considered a better legal environment as a factor affecting the quality of corporate governance system. Exploring a sample of German Jointstock Companies, they found that there is a positive relationship between companies' performance and the quality of corporate governance system. Gompers *et al.*, (2003) concluded that companies that pay less attention to shareholders' interests due to a weak governance system, experience lower sales growth, less profitability, but higher capital expenditure.

Black *et al.*, (2002) found a positive relationship between the quality of corporate governance and the ratio of market value to book equity value. Laporta *et al.*, (2000) observed that the companies that have a superior corporate governance system regarding legal support of stockholders and possess more development opportunities and stockholders' ownership is higher than liquidity flows in these companies are more likely to have a higher Tobin Q.

In Iran, some studies have addressed the relationship between some corporate governance criteria and performance evaluation indices. However, the present study is different from other studies regarding the time period in which the study has been conducted, the number and the type of corporate governance indexes, and the number and the types of methods used for corporate evaluation performance, to the point that even the methodology employed in the present study is different from those used in other studies. Some of the most important studies carried out in Iran are as follows:

Moddaras *et al.*, (2009) investigated the role of institutional shareholders as one of the most important corporate governance criteria in the shareholders' equities. To do so, data collected during a five year period (1998-2003) for 90 companies listed in Tehran Stock Exchange were examined. The findings of the study indicated that although the amount of institutional ownership in companies listed in Tehran Stock Exchange are very high, there is no significant relationship between institutional shareholders and returns on investment. However, the studies conducted in other countries generally suggested a positive or sometimes a negative relationship between institutional shareholders and returns on investment.

Hassas Yeganeh, Raeesi, and Hosseini (2009) ranked companies in terms of corporate governance and its effect on corporate performance. The ranking of the sample of companies was determined using a comprehensive questionnaire containing 25 corporate governance criteria. The criteria were derived from the provisions made in the corporate governance system of the companies listed in Tehran Stock Exchange in three categories of information transparency the structure of board of directors, and ownership structure. To this end, data obtained from 90 companies during a year were investigated and regression techniques were employed to test research hypotheses. The results of the study indicated that there was no significant relationship between the quality of corporate governance and firms' performance. Hassas Yeganeh, Moradi, and Eskandari (2008) using a sample of 61 companies active in Tehran Stock Exchange for the time period 1997-2004, examined the relationship between firm value and institutional ownership through multiple linear regression. By and large, the results of their study suggested a positive relationship between institutional investors and firm value which confirmed the existence of an efficient monitoring. However, the results of the study indicated that there was no significant relationship between institutional ownership concentration and firm value, rejecting the assumption of convergence of interests. Namazi and Kermani (2008) investigated the effects of ownership structure on performance of listed companies in Tehran Stock Exchange. To test each research hypothesis, four models were defined based on the dependent variables. The sample under study included 66 companies investigated from 2003 to 2007. Statistical methods used to test the hypotheses included the regression test of combined data. The findings of the study indicated that there was a significant and negative relationship between institutional ownership and the corporate performance, in addition to a significant and positive relationship existed between corporate ownership and corporate performance. However, managerial ownership significantly and negatively affected the corporate performance. Besides, regarding foreign ownership, no findings were obtained to show foreign investors' ownership in the sample of companies under study. It was also noted that private ownership had better been possessed mainly by corporate ownership. Generally, there was a significant relationship between ownership structure of firms and their performance. Shariat Panahi (2001) investigated the effect of ownership type on managers' performance in listed companies in Tehran Stock Exchange from 1993 to 1998. To collect the required data, he employed field methods and in some cases he used questionnaires. The results of the study showed that although a majority of corporate control mechanisms (such as percentages of managers' stocks, the number of non-bound board members, institutional investors' stock value, and management work force market) has had an impact on each other, ownership types (including major stockholders in public and private sectors) do not affect the companies' performance. Besides ownership types have not been optimally used in the firms listed in Tehran Stock Exchange, types of ownership (public and private sector and major shareholders) does not affect the performance of companies and of any is not optimally used (although there was no significant relationship between the number of non-bound managers and institutional investors' equity).

3-Research methodology

The present study has employed a descriptive-correlational research design and uses the Ordinary Least Squares Method to test the following research hypotheses:

3-1. Research hypotheses

Given the existing literature and the results of previous research, a positive relationship is anticipated between corporate governance quality and performance evaluation criteria. Since two criteria of percentage of non-bound managers and institutional investors were considered in the present study to address corporate governance quality and to address performance evaluation criteria as dependant variables, two criteria of rate of return on assets, Tobin Q ratio were considered to formulate the research hypotheses as follows:

1. There is a positive relationship between rate of return on assets and the percentage of non-bound managers and institutional investors.
2. There is a positive relationship between Tobin Q and the percentage of non-bound managers and institutional investors.

3-2 Measuring variables under study

Variables under study included four dependent variables employed in separate models. The independent variables consisted of two criteria of corporate governance system, including the percentage of non-bound managers and institutional investors.

3.2-1. Rate of return on assets (ROA)

The rate of return on assets is obtained by net profit divided by to the company's total assets.

3.2-2. Tobin Q

Tobin Q is the ratio of firm value in the stock market to book value of assets minus liabilities (Mahdavi and Meidari, 2005).

$$TobinQ = \frac{MV}{BV - DEBT}$$

Where MV is the firm's market value (number of shares multiplied by stock price at the end of fiscal year), DEBT is the firm's liabilities, and BV is the book value of company's assets.

3.2-3. The percentage of institutional investors:

It is the ratio (percentage) of non-bound members of the board of directors to the total number of board of directors.

3-3 The population and the sample under study and data collection method

Spatial domain of the present study included the firms listed in Tehran Stock Exchange from 2010 to 2014. The sample under study was selected through systematic omission method. Firms that have the following characteristics were selected as the sample in this study and the rest were excluded:

- A. Due to examination of market value added, differences in the nature of investment companies, insurance, leasing, and banks, the selected companies involved in productive activities.
- B. in order to select a homogeneous sample, the companies under investigation should have been listed before 2010 in Tehran Stocks Exchange and their stocks should have entered into transaction process at the beginning of 2010.
- C. In order to select the active companies, the transactions made by these companies should not have been paused from 2010 to 2014. In other words, the selected companies should have been active in Tehran Stocks Exchange during the mentioned time period and interruption of their activities should not have exceeded three months.

D) To provide the possibility of comparing companies and to avoid inconsistencies, the corporate fiscal year ended in March 29th. Furthermore, they should not have changed their fiscal years within the time period of 2010-2014.

E) The companies' financial statements and accompanying explanatory notes should be available.

Given the above mentioned conditions, 3 companies were included in the sample. In other words, 15 year-company was selected as the sample under study.

The Method used for data collection was documents exploration. To collect the required data, financial statements and the accompanying notes was used. To do so, Tactic Process Software and the official website of Tehran Stock Exchange have been employed.

4- Analysis

4-1 Testing the research hypotheses

Ordinary least squares (OLS) method was employed to estimate linear regression models. This method possesses desirable statistical characteristics such as being the best linear unbiased estimator, but to eliminate variance inconsistency problems, the Generalized Least Squares (GLS) method was used. The statistical method used in this study was the regression test along with combined data. The research hypotheses were tested through economic measuring models and multivariate regression techniques. To determine whether the regression model is significant or not, Fisher t value was used. In addition, to find out if the independent variables coefficients are significant in each model, Student's t value was employed at 95% level of confidence. The results of statistical tests indicate that there is no colinearity problem between independent variables. Watson and Durbin's Test was also used to check that there is no autocorrelation problem between residual terms. The results of Watson and Durbin's Test obtained through the software in all the tests indicate that there is no autocorrelation problem.

4-2 Models used in the study

The present study investigates the relationship between mechanisms related to corporate governance system and economic and financial criteria used for corporate performance evaluation. Based on what has been mentioned about explanatory variables, the models used in the study included the model related to testing the first model to the model related to testing the fourth model, i.e. four multivariate regression models generally shown as follows:

multivariate regression model, which is shown generally as follows:

$$Y = \beta_0 + \beta_1 \text{ outsider} + \beta_2 \text{ institution} + \varepsilon$$

$$H_0: \beta_1 = \beta_2 = 0$$

$$H_1: \beta_i \neq 0$$

Where Y_i is dependent variables including rate of return on assets (ROA), the ratio of the current company's market value to the company's book value (QTOBIN). *Outsider* is the variable related to the non-bound members of the board of directors, while *institution* stands for the independent variable related to the percentage of institutional investors. β is the constant coefficient and ε is the error coefficient for each independent period, with normal distribution and independent from the regression parameters. If H_0 is rejected, H_1 will be confirmed, indicating that there is a significant relationship between dependent and independent variables tested.

4-3 Descriptive statistics

Table 1 represents descriptive statistics of the variables under study.

Variables	% of major institutional investors	% of non-bound members	Returns on assets	Tobin Q
Number of observation per year	15	15	15	15
Minimum	0	0	-0.32	1.35
Maximum	0.985	0.893	0.667	3.99
Median	0.24740	0.51000	0.1168	2.23
Means	0.36397	0.38797	0.13993	2.2106
SD	0.329050	0.259401	0.129268	0.38893
Skewness	0.519	-0.462	0.780	1.251
Elongation	2.918156	3.25	16.98016	7.703246
Jag-Braga statistics	2.4588922	1.888021	1.756112	1.483245
p-value	0.3421	0.3891	0.3987	0.4526

Table 1 contains descriptive statistics of the data used in the linear regression test. Since a combination of time series and cross-sectional data were employed to test hypotheses, the number of year-company observations, based on a balanced combination of data, amounted to 15 cases. An overview of explanatory variables indicates that, on average, 64.48% of members of the board of directors in the sample of companies are non-bound members. Examination of these statistics for different years indicates the stability of the average value of this variable during the mentioned years. On the other hand, the percentage of the institutional investors' ownership on average is 46.67%. The highest percentage of major institutional shareholders' ownership was 96.86% and the lowest percentage is zero related to the time when there were no major institutional investors. The means for rate of return on assets is equal to 0.118865 and distribution index of standard deviation is 0.149390, indicating that the distribution rate of this variable is low at various companies. An examination of skewness and elongation for each variable compared to a normal distribution through Jag-Braga statistics shows that all variables have been normally distributed.

4-4 Result of hypothesis testing

The relationship between corporate governance quality and rate of return on assets: The results of the study indicated that there is a positive and significant relationship between the rate of return on assets and the percentage of Institution Ownership at 95% of level of confidence. The modified determinant coefficient related to testing the above hypothesis is equal to 0.058 and F value of the model is 245.727.

The relationship between corporate governance quality and Tobin Q: The results of the study indicated the there is a positive and significant relationship between Tobin Q and the percentage of non-bound members of the board of directors at 95% of level of confidence. Tobin Q is also positively and significantly correlated with the percentage of institutional investors at 95% of level of confidence. The modified determinant coefficient related to testing the above hypothesis is equal to 0.078 and F value of the model is 241.014.

. The results of testing the research hypotheses are presented in Table 2.

Dependent variable	Independent variable	Standard error	p-value	Modified R ²	F statistics	Durbin-Watson
Returns on assets	Non-bound members (%)	0.035	0.987	0.554	245.727	1.744
	Institutional investors (%)	0.017	0.001			
Tobin Q	Non-bound members (%)	0.041	0.059	0.549	241.014	2.103
	Institutional investors (%)	0.001	0.353			

5- Conclusions and recommendations:

Performance evaluation of companies and their managers plays a vital role in making financial decisions and as an important issue has received much attention from different groups such as creditors, owners, the government and even managers. Corporate governance system is created to provide control and balance between managers and shareholders' interests and thus reducing the agency conflict among them. This study investigated the relationship between corporate governance indices and financial performance indicators such as rate of return on assets and economic performance indices such as Tobin Q at the Tehran Stock Exchange. Research hypotheses aimed at to confirming that the corporate governance quality can explain the company's performance. Corporate governance criteria used in the present study consisted of the number of non-duty members of the board of directors and the percentage institutional investors in the companies under investigation. The results of the study indicated that there is a positive and significant relationship between the percentage of institutional investors and the rate of return on assets at 95% level of confidence. In addition, it was noted that there is no significant relationship between the number of non-bound members of the board and the rate of return on assets, at 95% level of confidence.

Overall, the results of the study in line with the results of foreign research such as Qoaray and Qonzalez (2008), Ricardo *et al.*, (2005), Drobetz *et al.*, (2004), Gompers *et al.*, (2003), Black *et al.*, (2002) and Laporta *et al.*, (2000) unlike the findings of other researchers such as Larcker *et al.*, (2007) suggested the existence of a significant and positive relationship between corporate governance criteria and companies' performance. In addition, in line with studies done by Hassass Yeganeh, Moradi, and Eskandari (2008), the present study found a positive relationship between the number of institutional investors and the company's value. Generally, the results of previous studies such as Shariat Panahi (2001), Hassass Yeganeh, Raesi and Hosseini (2009), Moddares *et al.*, (2009) contrary to the findings of the present study, found no significant relationship between corporate governance criteria and indices used to evaluate companies' performance due to factors such as the use of different time periods, employment of different methodologies e.g. the use of questionnaires, and the limitations regarding the time period in which the studies were conducted, the small research samples, and sometimes the employment of contradicting criteria for evaluation of corporate governance and companies' performance. However, the results of the present study generally suggested the existence of a positive and significant relationship between corporate governance criteria and indices used to evaluate the companies' performance. As noted by Namazi and Kermani (2008) there is a positive and significant relationship between corporate governance and companies' performance. However, contrary to Namazi and Kermani

(2008) who examined the relationship between ownership structure and performance of companies in Tehran Stock Exchange, the present study found a positive relationship between the percentage of institutional investors and the performance of companies active in Tehran Stock Exchange. In contrast, Namazi and Kermani (2008: 91) made a distinction between institutional investors and private investors. In fact, the method used in the present study to determine institutional investors is different from that used by Namazi and Kermani. Another criterion of corporate governance not being addressed by Namazi and Kermani (2008) and Hassass Yeganeh, Moradi, and Eskandari (2008) is the percentage of non-bound members of the board of directors examined in the present study which did not show a significant relationship with performance evaluation criteria.

5-1 Suggestions for future research

1. Based on the findings of the present study, it is suggested that fifty top company in terms of wealth creation whose rate of returns on assets, Q Tobin ratio, are higher than other companies along with 50 companies that occupy the first position with regard to wealth depreciation whose rate of returns on assets, Q Tobin ratio are lower than other companies to be chosen to make a comparative examination of corporate governance criteria and indicators of performance evaluation between these two groups of companies.
2. Conducting studies in different industries found in the Tehran Stock Exchange can provide guidelines on the conditions and differences of corporate governance system.
3. Finally, it is suggested that the relationship between rate of return on assets, Tobin Q ratio and other corporate governance criteria used in foreign research be also examined in Tehran Stock Exchange.

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