

Investigating the Effects of Corporate Governance System Quality on Company Performance

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Abstract

In general, corporate governance (CG) includes legal, cultural, and institutional arrangements that will determine companies' future direction and performance. The current research mainly tries to evaluate the impact of corporate governance system quality on the performance of the companies listed in Tehran Stock Exchange. In the current research, the quality of corporate governance system is considered as the independent variable to be able to examine its impact on the dependent variables including return on assets (ROA), return on equity (ROE), economic value added (EVA), and market value added (MVA). The research statistical population is composed of all of the companies listed in Tehran Stock Exchange within 2008 to 2014, and the sample size based on screening method and after the removal of outlier observations was obtained to be 112 firms. In the research, integrated data and also panel data with fixed and random effects were used. The results from the companies' data analysis using multivariate regression at the confidence level of 95% shows that the quality of corporate governance system has a direct and positive impact on the dependent variables including ROA, ROE, EVA, and MVA.

Keywords: Corporate Governance; Firm Performance; Return on Assets (ROA); Return on Equity (ROE); Economic Value Added (EVA); Market Value Added (MVA).

1-Introduction

Nowadays, one of the most important financial issues relevant to the firms is firm performance measurement that can be considered the basis for many decisions inside and outside the firm. Corporate ownership through stock ownership has a significant impact on the firm control procedure. Thus, the owners have delegated corporate management to the managers, and securities exchange market has been formed. One of the tools for optimal allocation of resources is the securities markets. Therefore, any problem that arises in the market is not merely an economic issue, and also it also turns into a social problem by which the community's public interest would be in danger. The board of directors is a critical element in a firm's corporate governance system, and it has two major functions. One is to hire, fire, and compensate managers, i.e., the monitoring role, and the other is to advise managers on important strategic decisions, i.e., the advisory role (Masulis, Wang, and Xie 2012). Firstly, the current research seeks to evacuate firms' extent of attention paid to corporate governance issues as one of the important tools to

maintain market health and to provide activists and in particular small stakeholders with more trust and confidence. Secondly, the research examines firms' performance (Tobin's Q, ROA and ROE) in the form of duties and obligations delegated in accordance with the agency theory. In fact, the current research presents an examination of the firm managers' extent of contribution to provide useful information for owners and also decision makers. Tobin-Q ratio is one of the tools for measuring the companies' market performance in the present research, and ROA is one of the financial ratios that is acquired by dividing net income resulted from ROA divided by book value of total assets. ROA is concerned with firm's production and sales skills. ROE is acquired using this ratio of firm profit per Rial right of shareholders, which is calculated through the net income obtained from ROE (shareholders), divided by capital (shareholders' rights).

Various researches have been performed on corporate governance in Iran and other parts of the world. In previous research, Claessens and Yurtoglu (2013), in their article, evaluated Corporate governance in emerging markets (Claessens and Yurtoglu 2013), Shurvarzi et al (2015) evaluated the relationship between corporate governance and corporate performance based on fuzzy regression, (Mohammad Reza Shurvarzi 2015), Gonzalez and Garcia-Meca (2013) examined the Influence of corporate governance on earnings management in Latin American Markets. (Sáenz González and García-Meca 2013), Jo and harjoto (2011) worked on Causal Effect of Corporate Governance on Corporate Social Responsibility (Jo and Harjoto 2011), Michelon and Parbonetti (2010) evaluated the effect of corporate governance on sustainability disclosure (Michelon and Parbonetti 2010), Khan et al (2012) examined the relationship between corporate governance and the extent of corporate social responsibility (CSR) disclosures in the annual reports of Bangladeshi companies. (Khan, Muttakin, and Siddiqui 2012) Also Giroud and Mueller (2011) evaluated Corporate governance, product market competition, and equity prices and find that U.S. firms with poor-quality corporate governance (Giroud 2011).

According to surveys conducted, no research has been yet performed on the impact of corporate governance on EVA and corporate performance using assessment criteria (Q Tobin, ROA and ROE). Therefore, the issue at hand in the present research is quite new and innovative.

2- Data and Methodology

2-1- Data collection

The research statistical population is composed of all of the firms listed in Tehran Stock Exchange within 2008 to 2014, and the sample size based on screening method and after the removal of outlier observations was obtained to be 112 firms. Using the software Microsoft Excel (version 2010), and after the required reform and classification on the basis of the research variables, the collected data were inserted into SPSS (version 19) and Eviews (version 6), and the final analysis was performed.

2-2- Research Hypotheses

First hypothesis

Corporate governance (CG) affects EVA.

$$EVA = \alpha_0 + \alpha_1 CG - SCR + \alpha_2 LASSETS + \alpha_3 CSRATIO + \alpha_4 ISRATIO + \alpha_5 LEVERAGE + \varepsilon$$

Second hypothesis

Corporate governance (CG) affects market performance assessment criterion (Tobin's Q).

$$\text{Tobin's Q} = \alpha_0 + \alpha_1 CG - SCR + \alpha_2 LASSETS + \alpha_3 CSRATIO + \alpha_4 ISRATIO + \alpha_5 LEVERAGE + \varepsilon$$

Third hypothesis

Corporate governance (CG) affects operational performance assessment criterion (ROA).

$$ROA = \alpha_0 + \alpha_1 CG - SCR + \alpha_2 LASSETS + \alpha_3 CSRATIO + \alpha_4 ISRATIO + \alpha_5 LEVERAGE + \varepsilon$$

Fourth hypothesis

Corporate governance (CG) affects operational performance assessment criterion (ROE).

$$ROE = \alpha_0 + \alpha_1 CG - SCR + \alpha_2 LASSETS + \alpha_3 CSRATIO + \alpha_4 ISRATIO + \alpha_5 LEVERAGE + \varepsilon$$

MVSC= is the market value of the company common stock, four months after the end of the fiscal year (end of July).

BVPS= the book value of preferred stock.

BVLTD= book value of long-term debt.

BVINV= book value of inventories.

BVCL= book value of current liabilities.

BVCA= book value of current assets.

BVTA= book value of total assets.

LASSETS= the natural logarithm of the book value of total assets, and an indicator for the company size
 = Control variable

CSRATIO= an index that shows management efficiency; it is capital ratio (total book value of tangible assets) divided by total sales. = Control variable

3- Research Methodology

The current research is applied in terms of objective, and it is correlative in terms of nature and content, and it analyzes the correlation relationship using the secondary data extracted from the financial statements of the companies listed in Tehran Stock. The research was conducted based on deductive-inferential reasoning.

The main reason behind using correlation method is to identify the correlations between the variables. Correlative research is one type of descriptive research. On the other hand, the current research is of Ex-Post Facto type (semi-experimental), i.e. it is performed based on the analysis of the past historical information (financial statements). In addition, this research is of a library- and factorial-causal type, and is built upon an analysis of panel data. In the current research, firstly, the correlation between the research variables was tested, and then in case of the presence of correlation, the regression model estimation was performed.

4- Data Analysis

Table 1 shows the descriptive statistics that were evaluated during the analysis.

Table 1: the descriptive statistics of the research variables

Variables	Mean	Median	SD	Minimum/lower	Maximum /upper
Return on Assets (ROA)	0.102	0.078	0.123	-0.313	0.814
Return on Equity (ROE)	0.283	0.272	1.105	-16.010	13.826
Economic Value Added (EVA)	0.7396	0.713	0.614	0.226	0.965
Firm Size (LASSETS)	13.430	13.228	1.313	10.785	18.438
LEVERAGE (Financial Leverage)	0.673	0.667	0.204	0.180	1.938
Tobin's-Q	1.316	1.148	0.599	0.623	7.709
Management Efficiency (CSRATIO)	1.403	1.406	0.183	1.087	1.720
The ratio of operational profit to sales (ISRATIO)	0.402	0.403	0.069	0.285	0.520
Corporate Governence (CG – SCR)	0.576	0.573	0.135	0.355	0.820

In addition, Chow test was performed on the data as shown in Table 2.

Table 2: Chow test results

Regression Model	F-statistics	Probability	Test result	
1 st	**264.621	0.00	Rejecting the null hypothesis	Panel Model
2 nd	1.197	0.318	Accepting the null hypothesis	Integrated Model
3 rd	**67.321	0.00	Rejecting the null hypothesis	Panel Model
4 th	**89.12	0.00	Rejecting the null hypothesis	Panel Model

** Significance at 95% confidence

In the case of the first, third and fourth models, according to the significance level, Chow test results show that the hypothesis H_0 (integrated model) is not confirmed. In other words, individual or collective impacts do exist, and panel data method should be used for estimating the research regression model. In addition, and at the next stage, Hausman test is utilized to determine the panel type (with random effects or fixed effects).

Table 3: Hausman test results

Regression Model	Statistics χ^2	Probability	Test Result	
1 st	**156.107	0.00	Rejecting the null hypothesis	Panel with constant effects
3 rd	3.321	0.439	Accepting the null hypothesis	Panel with random effects
4 th	**96315	0.00	Rejecting the null hypothesis	Panel with constant effects

** Significance at 99% confidence

In the case of the second model, the results from Chow test shows that the hypothesis H_0 (integrated model) is confirmed. In other words, individual or collective impacts do not exist, and integrated data method should be used for estimating the research regression model, hence Hausman test is not required to be used. In addition, the Kolmogorov-Smirnov test is utilized to determine the data normality, and the results are presented in Table 4.

Table 4: Kolmogorov-Smirnov Test

Variable	Kolmogorov-Smirnov Z	Significance Level	Result
Return on Assets (ROA)	0.6697	0.4696	Distribution is normal
Return on Equity (ROE)	0.4528	0.0688	Distribution is normal
Economic Value Added (E)	0.3458	0.1225	Distribution is normal
Tobin's-Q	0.2918	0.1498	Distribution is normal

Table 5: the results obtained from the regression equation fitness from the first hypothesis

Variable	Variable Coefficient	Coefficient Values	T-statistic	Significance level
Constant value	β_0	1/522	2.873	0.004
Corportae Governance (CG – SCR)	β_1	3.224	1.121	0.231
LASSETS (Firm Size)	B_2	2.467	3.838	0.00
Management efficiency (CSRATIO)	B_3	-2.311	-2.987	0.0031
The ratio of operational profit to sales (ISRATIO)	B_4	1.241	2.347	0.034
Financial Leverage (LEVERAGE)	B_5	0.453	.453	0.021

Coefficient of Determination	0.452	F-statistics	11.276
Adjusted Coefficient of Determination	0.417	Significance (P-value)	0.00
		Durbin-Watson statistics	1.811

Table 6: the results obtained from the regression equation fitness from the second hypothesis

Variable	Variable coefficient	Coefficient Values	T-statistic	Significant level
Constant value	β_0	3.641	2.873	0.004
Corporatae Governance (CG – SCR)	β_1	4.671	5.073	0.00
LASSETS (Firm Size)	B_2	3.098	3.838	0.0027
Management efficiency (CSRATIO)	B_3	-1.098	-2.388	0.002
The ratio of operational profit to sales (ISRATIO)	B_4	3.215	2.141	0.003
Financial Leverage (LEVERAGE)	B_5	0.215	0.872	0.231
Coefficient of Determination	0.512	F-statistics		7.432
Adjusted Coefficient of Determination	0.483	Significance (P-value)		0.003

		Durbin-Watson statistics	1.742
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Table 7: the results obtained from the regression equation fitness from the third hypothesis

Variable	Variable coefficient	Coefficient Values	T-statistic	Significant level
Constant value	β_0	4.674	2.873	0.004
Corporatae Governance (CG – SCR)	β_1	2.871	6.273	0.00
LASSETS (Firm Size)	B_2	1.134	5.154	0.0002
Management efficiency (CSRATIO)	B_3	-2.677	-2.044	0.0048
The ratio of operational profit to sales (ISRATIO)	B_4	1.841	3.342	0.0015
Financial Leverage (LEVERAGE)	B_5	0.902	2.567	0.032
Coefficient of Determination	0.542	F-statistics		9.879
Adjusted Coefficient of Determination	0.451	Significance (P-value)		0.001
		Durbin-Watson statistics		1.932

Table 8: the results obtained from the regression equation fitness from the fourth hypothesis

Variable	Variable coefficient	Coefficient Values	T-statistic	Significant level
Constant value	β_0	-2.677	-2.044	0.0048
Corporatæ Governance (CG – SCR)	β_1	1.709	3.342	0.0015
LASSETS (Firm Size)	B_2	0.311	2.987	0.0037
Management efficiency (CSRATIO)	B_3	1.241	2.847	0.014
The ratio of operational profit to sales (ISRATIO)	B_4	0.671	2.297	0.022
Financial Leverage (LEVERAGE)	B_5	0.671	2.561	0.037
Coefficient of Determination	0.361	F-statistics		14.765
Adjusted Coefficient of Determination	0.297	Significance (P-value)		0.00
		Durbin-Watson statistics		1.787

5- Conclusion

Based on the results from Table 4 to 8, regarding each hypothesis, it can be concluded that:

First hypothesis: Corporate governance (CG) affects EVA.

In considering the significance of the entire model, given that F-statistics probability value is smaller than 0.05 ($F=1.17$), the significance of the model is confirmed with 95% confidence level. The model's coefficient of determination suggests that 41.7% of EVA in the Tehran Stock Exchange is explained by the variables inserted in the model.

Second hypothesis: Corporate governance (CG) affects Tobin's Q.

In considering the significance of the entire model, given that F-statistics probability value is smaller than 0.05 ($F=7.342$), the significance of the entire model is confirmed with 95% confidence level. The model's coefficient of determination suggests that 48.3% of Tobin's Q market performance in Tehran Stock and Securities Exchange is explained by the variables inserted in the model.

Third hypothesis: Corporate governance (CG) affects operational performance assessment of ROA.

In considering the significance of the entire model, given that F-statistics probability value is smaller than 0.05 ($F=9.879$), the significance of the entire model is confirmed with 95% confidence level. The model's coefficient of determination suggests that 45.1% of ROA operational performance of the firms listed in Tehran Stock and Securities Exchange is explained by the variables inserted in the model.

Fourth hypothesis: Corporate governance (CG) affects operational performance assessment of ROE.

In considering the significance of the entire model, given that F-statistics probability value is smaller than 0.05 ($F=14.765$), the significance of the entire model is confirmed with 95% confidence level. The model's coefficient of determination suggests that 29.7% of ROE operational performance of the companies listed in Tehran Stock and Securities Exchange is explained by the variables inserted in the model.

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