## The Relationship between Corporate Governance and Performance of Insurance Firms: Evidence from Turkey

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#### Abstract

There are many studies in the field of corporate governance from all around the world. In accordance with these studies, it is emphasized that it cannot be mentioned about any single corporate governance model which is valid for all countries. Thus, this study aims to research the relationship between corporate governance and performance of insurance firms. Data used in this study is derived from seven insurance firms listed on Borsa İstanbul (BİST) and it is limited to 2005-2011 periods. The effects of corporate governance on performance of insurance firms are analyzed by multiple regression method. In the study, Return on Equity (ROE) is used as performance indicator of insurance firms, namely the dependent variable. And insurance firms' size of board of directors, free float rate, CEO duality, the block holder ratio, number of owners and total assets have been used as independent variables. The results of the analysis have proven a positive relation between ROE and free float rate, CEO duality and total assets.

**Keywords:** Corporate Governance, Firm Performance, Insurance Firms.

#### Introduction

The most used definition about the corporate governance is "Corporate governance deals with the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment" by Shleifer and Vishny (1997: 737)

Corporate governance aims to manage in a way which maximizes the profits and benefits of corporate shareholders. It has the most important role to gain trust of investors and the public (Pamukçu, 2011: 134).

Corporate governance gives investors a power to prevent CEO and board of directors to expropriate all corporations' assets. Corporate governance can be summarized in one word as a control (Kula, 2006).

Maher and Andersson (1999) referred that there is an effect of corporate governance on corporate and economic performance. Corporate governance both influences the progress and processing of capital markets and puts forward powerful impact on resource allocation.

Corporate governance, which is a significant framework condition, also impresses industrial competitiveness and economies of member countries in the period of high capital mobility and rapid globalization (Maher and Andersson, 1999). In the literature there are many studies that researched the effects of corporate governance on corporate performance, especially for developed markets. Researchers stated that fine governance applications result in the enhancements of economic value added, higher productivity and reduce the risk of systematic financial failure. However, there is no sufficient research for emerging markets, thus researching corporate governance in emerging markets is a fast-growing area (Maher and Andersson, 1999).

Corporate governance cause to change business management philosophy in the field of information systems and accounting system (Aysan, 2007).

There are studies about the relationship between corporate governance and firm performance in the literature. But the originality of this paper comes from assumption that it is the pioneer study that examined how corporate governance effects the performance of insurance firms for Turkey.

This study aims to analyze the effects of corporate governance on the performance of insurance firms. The originality of this paper with this purpose, a sample has been constituted by using financial data of 7 insurance firms traded in Borsa Istanbul (BIST) for the period of 2005-2011. The effects of corporate governance on the performance of insurance firms are analyzed by multiple regression method. In the study, Return on Equity (ROE) is used as performance indicator of insurance firms, namely the dependent variable. And insurance firms' size of board of directors, free float rate, CEO duality, the block holder ratio, number of owners and total assets have been used as independent variables.

The study consists of five sections. In the second section that follows the introduction part, we summarize academic studies that measure the relationship between corporate governance and firm performance. The third section describes the methodology and the model of the study by introducing dependent and independent variables. The fourth chapter covers the results of multiple regression models. And in the last section we conducted an overall assessment of the research.

### The Literature Review

Drobetz, Schillhofer and Zimmermann (2003) examine the relationship between corporate governance and firm performance in Germany. Tobin's Q and market-to-book ratio (MTBR) are used as firm valuation measures. According to the results of the empirical study there is a strong and a significant positive relationship between the quality of firm-level corporate governance and firm valuation.

Beiner et. al. (2004) analyzed the relationship between corporate governance and firm valuation for Switzerland. The results of study show that corporate governance index (CGI), board size and shareholdings of officers and directors have a statistically significant effect on firm valuation. Beiner et. al. (2004) stated that the positive relationship between firm-level corporate governance and Tobin's Q.

Wu and Xu (2005) investigated corporate financing decisions and corporate governance effects on the firm value. Findings of the study are consistent with major corporate governance theories explaining financing decisions' roles in a more competitive financial market.

Chhaochharia and Grinstein (2007) founded that the corporate governance rules (Sarbanes-Oxley Act) had a significant effect on firm value.

Javed and Iqbal (2007) analyzed the relationship between corporate governance and firm value for the Karachi Stock Market, Pakistan. The sample of 50 firms is selected for the year 2003, 2004 and 2005 for the empirical study. The Tobin's q, corporate governance index (CGI)-board composition (board), ownership and shareholdings (share) and disclosure, transparency and auditing (disc.); and size (in assets), leverage (debt/total asset ratio) and growth (average sale growth) are used in estimation. According to the results of the study a positive and significant relation has been found between the quality of firm-level corporate governance and firm performance.

Toraman and Abdioğlu (2008) investigated weak and strong corporate governance practices of Borsa Istanbul (BIST) corporate governance index companies. In this respect rating reports had been investigated. Study results shows that the most powerful corporate governance practices are observed at the stakeholders section and the weakest are at the board of directors section of the guide.

Dinç and Abdioğlu (2009) have studied the relationship between corporate governance and accounting information system with an empirical study for the BIST-100 (Borsa İstanbul-100) companies. Dinç and Abdioğlu (2009) points out that there is a strong positive correlation between accounting information system and corporate governance.

Karamustafa et. al. (2009) investigated the relationship between corporate governance and corporate performance by analyzing Corporate Governance Index of 8 firms listed in BIST (Borsa İstanbul). They used both pre- and post-indexed the firms' data. They treated current ratio, asset turnover, ROA, profit capital ratio, net profit margin, operating profit margin, debt ratio and financial leverage ratio as financial performance indicators of firms. They founded that there is statistical difference for asset turnover, ROA, and profit capital ratio between pre- and post-index periods.

Najjar (2012) in his study examines the effect of corporate governance mechanisms on the firm's performance of the insurance industry in Bahrain. A sample of five insurance companies listed on Bahrain Stock Exchange (BSE) has been used for the period of 2005-2010. The Pooled Least Squares method is used for the empirical study. Board size, CEO status, ownership concentration, firm size, industry performance, employees, shares traded is used as the independent variables and ROE is used as a dependent variable. According to the findings Najjar (2012) stated that in Bahrain there is a significant impact for corporate governance on the firm's performance in the insurance industry. No significant impact of corporate governance has been found expressed by CEO status, ownership concentration, the number of employees, industry performance and number of shares traded on the firm's performance (ROE). But a significant impact has been found for board size, firm size and number of blocks-holders on firm performance.

Hatunoğlu and Güneş (2012) studied about the effects of the corporate governance practices on accounting information system based on new Turkish Commercial Code.

#### Methodology

The present study aims to analyze the influence of corporate governance on insurance firms' performance. With this purpose in mind, a sample has been constituted by using financial data of 7 insurance firms traded in Borsa İstanbul (BIST) in the years of 2005-2011. All data utilized in the study have been obtained from the official web site of Borsa İstanbul (BIST)<sup>1</sup>. Multiple regression and descriptive statistics have been used in empirical analysis. Durbin-Watson d statistic has been used to test if there is an autocorrelation of first degree between the error terms of the sample. Additionally, variance inflation factors (VIF) method has been used to determine multicollinearity. One dependent variable (ROE) and six independent variables (*BOARDSIZE, FFRATE, DUALITY, BLOCKHOLDERS, OWNERSHIP* and *SIZE*) have been used in the multiple regression models. Dependent and independent variables used in the study are as below.

Variables Description	Variables Description
Dependent Variables	
Return on Equity (ROE)	The ratio of net profit after tax to total equity capital
Independent Variables	
The Size of the Board of Directors	It shows the total number of members in board of
(BOARDSIZE)	directors.
Free Float Rate (FFRATE)	It is the rate of free float of the business.
Ceo Duality (DUALITY)	The cases in which CEO is the chairman of the board of
	directors=1 other cases=0
Structure of Ownership	The ratio of blockholder's stocks to all stocks.
(BLOCKHOLDERS)	
Number of Owners (OWNERSHIP)	Number of owners of insurance firms
Size of firm (SIZE)	Natural logarithm of total assets

Table 1: Descriptions of Variables Used in Analysis

Below regression model and hypotheses have been developed based on dependent and independent variables introduced in Table 1 as well as considering the studies of Najjar (2012) and Javed and Iqbal (2007) found in literature.

**Model:**  $(ROE)_{it} = \beta_{it} + \beta_2 BOARDSIZE_{it} + \beta_3 FFRATE_{it} + \beta_4 DUALITY_{it} + \beta_5 BLOCKHOLDERS_{it} + \beta_6 OWNERSHIP + \beta_7 SIZE + e_{it}$ 

 $H_1$ : There is significant impact for board size on ROE.

*H*<sub>2</sub>: *There is significant impact for free float rate on ROE.* 

*H*<sub>3</sub>: *There is significant impact for Ceo duality on ROE.* 

<sup>&</sup>lt;sup>1</sup>www.borsaistanbul.com

H<sub>4</sub>: There is significant impact for blockholders on ROE
H<sub>5</sub>: There is significant impact for ownership concentration on ROE
H<sub>6</sub>: There is significant impact for firm size on ROE

Table 2 shows the results of descriptive statistics concerning dependent and independent variables used in empirical analyses. As shown in Table 1, average return on equity (ROE) of the firms listed in BIST and reviewed in scope of the analysis is calculated as -0.7%. Additionally, the values for insurance firms' board of directors' size (*BOARDSIZE*), their free float rate (*FFRATE*), the ratio of block holder's stocks to all stocks (*BLOCKHOLDERS*) and number of owners (*OWNERSHIP*) have been determined as **7.57**; 22.37; 61.26 and 3.14 respectively.

Variables	Number Of Observations	Minumum	Maximum	Mean	St. Dv.
Roe	49	-1,34	0,36	-0,007	0,30
Boardsize	49	5	14	7,57	1,58
Ffrate	49	1,34	41	22,37	1,45
Duality	49	0	1	0,29	0,45
Blockholders	49	34,22	98,66	61,26	2,05
Ownership	49	2	5	3,14	1,12
Size	49	22,45	18,68	20,53	1,01

### Findings

Table 3 shows multiple regression analysis results indicating the relation between performance of insurance firms and corporate governance related to above developed model.

Table 3 Results	of Regression	Analysis
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MODEL ROE	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity	Statistics
	В	Standart	Beta			Tolerance	VIF
Constant	-2,497	,553		-4,51	,000,		
BOARDSIZE	,004	,017	,023	,259	,796	,547	1,828
FFRATE	,009	,004	,445	2,232	,027	,108	9,233
DUALITY	,209	,055	,315	3,821	,000	,634	1,578
BLOCKHOLDERS	,004	,003	,247	1,316	,190	,122	8,219
OWNERSHIP	,037	,032	,140	1,169	,244	,299	3,342
SIZE	,090	,029	,303	3,087	,002	,445	2,246
F-Statistic				7,285			
Adjusted R <sup>2</sup>	0,162						
DurbinWatson	1,745						

\*\*\*, \*\* and \* indicate significance at the level of 1%, 5% and 10% respectively

According to Table 4, the results of regression model may be shown mathematically as below:

**Model** :  $(ROE)_{it} = \beta_{it} + (,023)BOARDSIZE_{it} + (,445)FFRATE_{it} + (,315)DUALITY_{it} + (,247)BLOCKHOLDERS_{it} + (,140)OWNERSHIP + (,303)SIZE + e_{it}$ 

When Model 1 is analyzed, independent variables of FFRATE, DUALITY and SIZE are observed to influence insurance firms' performance (ROA). A positive relation has been found between free float rate (FFRATE), Ceo duality (DUALITY) and total assets (SIZE) and performance (ROE) of the insurance firms. In other words performance increases as free float rate and total assets of the insurance firm increase. In addition to this, return on equity rate of insurance firms have been observed to increase in cases in which general manager is also chairman of the board of directors. A positive and statistically insignificant relationship has been determined between insurance firms' financial performances and other independent variables, namely the size of board of directors (BOARDSIZE), the ratio of block holder's stocks to all stocks (BLOCKHOLDERS) and number of owners (OWNERSHIP). Although BLOCKHOLDERS and OWNERSHIP did not have a significant relation with the performance of insurance firms, the positive quality of this relation ( $\beta$ = 0,247 and 0,140) may be considered as an important finding. In conclusion,  $H_2$ ,  $H_3$  and  $H_6$  hypotheses are accepted while H1, H4 and H<sub>5</sub> hypotheses are refuted.

Durbin-Watson d statistics have been used in the model to test if there is autocorrelation of the first degree. Durbin-Watson d statistics usually show no autocorrelation around 1.5 and 2.5 (Kalaycı, 2009: 267). Variance Inflation Factor (VIF) has been used to test multicollinearity and to support regression model's results. Other method used to determine multicollinearity problem is tolerance value of the variables. In cases where VIF value is under 10 and tolerance value is not very close to 0, model is considered to be free from multicollinearity problem (Gujarati, 1995). All three models have pretty good VIF and tolerance values. There are no multicollinearity problems and autocorrelation in the model and this shows soundness and reliability of the model.

# Findings

The present study aims to analyze the influence of corporate governance on insurance firms' performance. With this purpose in mind, a sample has been constituted by using financial data of 7 insurance firms traded in Borsa İstanbul (BIST) in the years of 2005-2011. In the study, Return on Equity (ROE) is used as performance indicator of insurance firms, namely the dependent variable. And insurance firms' sizes of board of directors, their free float rates, CEO duality, the block holder ratio, number of owners and total assets have been used as independent variables.

The results of the analysis have proven a positive relation between ROE and free float rate, CEO duality and total assets. In other words performance increases as free float rate and total assets of the insurance firm increase. In addition to this, return on equity rate of insurance firms have been observed to increase in cases in which general manager is also chairman of the board of directors. A positive and statistically insignificant relationship has been determined between insurance firms' financial performances and other independent variables, namely the size of board of directors (*BOARDSIZE*), the ratio of

block holder's stocks to all stocks (*BLOCKHOLDERS*) and number of owners (*OWNERSHIP*). Although *BLOCKHOLDERS* and *OWNERSHIP* did not have a significant relation with the performance of insurance firms, the positive quality of this relation ( $\beta$ = 0,247 and 0,140) may be considered as an important finding. In conclusion,  $H_2$ ,  $H_3$  and  $H_6$  hypotheses are accepted while *H1*, *H4* and  $H_5$  hypotheses are refuted.

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