

Performance Effects of Outside Directors on Corporate Boards

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Abstract

This paper investigates the performance effects of having independent outside directors on corporate boards. The study surveys all firms listed at the Istanbul Stock Exchange (ISE-All Share) and finds that firms with outsiders on board perform better in terms of both accounting and market-based measures. This effect holds even when performance is measured using industry-adjusted variables. In a multivariate regression framework, including a number of variables to control for size, growth prospects and corporate governance environment of the firm, there is a significantly positive association between the number of independent directors on board and corporate performance. However, the ratio of outsiders to the total number of directors on board calls for further research.

Keywords: Independent Outside Directors, Corporate Boards, Firm Performance, Istanbul Stock Exchange (ISE), Turkey.

1. Introduction

Corporate finance literature has long been busy with exploring the relationship between the monitoring role of the board of directors and corporate performance (Jensen and Meckling, 1976; Fama and Jensen, 1985). There has been considerable pressure on publicly traded firms to increase outsider representation on their boards over the last two decades. The notion of “board independence”, first voiced in the Cadbury Report (1992), is also ingrained in the Sarbanes Oxley Act of 2002 (SOX). Yet skeptics argue that aiming for a certain number of outsiders on board is all part of the “window-dressing” and is not likely to improve corporate governance (Romano, 2005).

Empirical evidence is mixed. Hermalin and Weisbach (1991) fail to find a significant relationship between performance and the fraction of outside directors for firms listed at the New York Stock Exchange (NYSE) during 1971-1983. Similarly, Bhagat and Black (2002) fail to find a significant relationship between board composition and long-term measures of firm performance for a sample of US firms in 1991. However, more recently, Duchin et al. (2010) report a large and statistically significant relation between board independence and performance for US firms when the cost of acquiring information is low. Similarly, for the UK, Dahya and McConnell (2007) report positive improvements in both accounting and market based measures of performance following increases in outsiders.

This paper contributes to this debate by providing empirical evidence from Turkey, an emerging market with a very high foreign institutional investor base¹. The study investigates whether having independent outside directors on corporate boards affects firm performance. Findings are consistent with recent studies that document a positive relationship between the number of outside directors and corporate performance.

Section 2 of the paper reviews the theoretical background, Section 3 describes the research methodology, Section 4 presents findings and Section 5 provides concluding remarks.

2. Theoretical Background

In the theoretical framework, there are mainly three broad views regarding corporate boards. According to the *window-dressing view*, any attempt to improve corporate governance through regulation would be futile since boards can operate in rather ‘opaque’ forms. In the sense that, outside directors can be independent according to regulation but a personal friend of the CEO (Coles et al., 2007). A good example is the appointment to Disney’s board the principal of a school attended by the CEO’s children (Bryne et al., 1997).

¹ As of the end of July 2011, foreign institutional investors hold 62% of the Istanbul Stock Exchange (ISE) by market value.

Therefore this view suggests that board independence has no effect on firm performance. On the other end of the continuum, the *entrenchment view* suggests that outside directors are effective monitors and new board regulations such as the SOX help lead the firm to improved performance. The basic assumption of this view is that market forces alone do not provide a sufficiently strong corporate governance mechanism (Duchin et al., 2010).

Lastly, the *optimisation view* suggests that boards are formed to maximize value. Hence there exists a trade-off between inside and outside directors in advising and monitoring in a way that will maximize shareholder value. Proponents of this view argue that by artificially increasing the number of outside directors through regulation the firm arrives at a suboptimal level in which performance starts to decline. For example, Raheja (2005) explains how boards can be formed optimally from an information point of view.

In an attempt to reconcile these seemingly contradictory views, Duchin et al. (2010) suggest the possibility of multiple motives in board composition and formulate a model that embraces the three views with a particular emphasis on the role of information. This is the model that the current study uses as a basis for variable selection, as outlined in the section that follows.

3. Data and Methodology

3.1. Sample

The sample includes all firms traded at the Istanbul Stock Exchange (ISE). There are a total of 300 firms with complete board and financial data included in the study. Board data was compiled using audited annual reports disclosed on corporate web sites. Raw financial data was downloaded from the ISE web site² during July 2011, covering audited financials for 2008-2010 year-ends. This period marks the beginning of recent regulatory changes governing firms included in the Corporate Governance Index (the XKURY) of the ISE (2008). Using this raw data, a number of accounting and market based performance variables, as well as industry-adjusted variables were calculated by the author, which are explained in the following section.

3.2. Empirical model and definition of variables

The study measures corporate financial performance using accounting and market based variables. Both variables are industry adjusted using the procedure described in Dahya et al. (2002). In order to proxy for accounting based performance, the study uses return on equity (ROE) since it is frequently used in cross-sectional studies as a more appropriate measure of shareholders' welfare (Baysinger and Butler, 1985). Following Cheng (2008), the study uses data for current year, prior year and two-years prior, in order to capture the over-time variability of corporate performance. This method also helps overcome the criticism that differences in cross-sectional variability in performance are driving the results. Hence, the industry-adjusted three-year average return on equity (IAROE-3yrAvg) is used as the dependent variable in the multivariate regression analysis. However to test for robustness, return on equity for the current year (ROE-cy), three-year average return on equity (ROE-3yrAvg) and industry- adjusted return on equity for the current year (IAROE-cy) are also computed and tested.

In order to proxy for market based performance, the study uses industry-adjusted price performance year to date (IAPP-ytd), as in Dahya and McConnell (2005). The raw share prices from the ISE are also adjusted for stock dividends and splits by the author. Additionally, the simple price performance (PP-ytd) is computed to test for robustness. Board independence is proxied by two different measures of independence. The *IndepOnBoard* variable is the number of independent outside directors on board, while the *IndepRatio* variable is the ratio of outside directors to the total number of directors on board. Hence the model captures not just the effect of having outside directors but also their relative weight in the decision making process of the board. In measuring the performance effects of outside directors, a number of control variables shown to have an impact in prior studies are used. These control variables are, total number of directors on board (*BoardSize*), firm size (*lnEquity*), the market-to-book ratio (*MV2BV*), and percentage of equity traded at the ISE (*FreeFloat*). Board size and firm size capture the "complexity" of the firm. Coles et al. (2008) and Boone et al. (2007) suggest that complex firms may have a greater demand for outside directors in order to keep a close eye on the managers. Smith and Watts (1992) argue that the market-to-book ratio is a proxy for the presence of future growth opportunities relative to assets in place.

² The official ISE web site: www.imkb.gov.tr

Finally, the free float rate is a proxy for the concentration of ownership structure (Verriest et al., 2009) used in order to include in the model the corporate governance environment of the firm. A number of dummy variables are also used to capture the effects of any additional cross-sectional variation in performance, such as being audited by the large international auditing firms (BIG4 Dummy), being included in the Corporate Governance Index of the ISE (XKURY Dummy) and industry dummy variables to represent a total of 20 different industries. Therefore, corporate financial performance, CFP_t , is specified by the following empirical model:

$$CFP_t = a_0 + a_1 IndepOnBoard_t + a_2 IndepRatio_t + a_3 BoardSize_t + a_4 LnEquity_t + a_5 MV2BV_t + a_6 FreeFloat_t + a_7 BIG4_t + a_8 XKURY_t + a_9 Industry_t + e_t \quad (1)$$

4. Findings

Table 1 presents the descriptive statistics. The average board size of Turkish firms is 6.5, with a minimum of 3 and a maximum of 18 directors. The average number of independent outside directors is 0.8, with a minimum of 0 and a maximum of 8 directors. The average board independence ratio is 10%.

Table 1. Descriptive Statistics

	Min	Max	Mean	Percentiles		
				25th	50th	75th
IndepOnBoard	0.0	8.0	0.8	0.0	0.0	1.0
IndepRatio	0.0	1.0	0.1	0.0	0.0	0.2
BoardSize	3.0	18.0	6.5	5.0	7.0	8.0
LnEquity	6.5	15.3	10.8	9.5	10.8	12.0
FreeFloat	0.0	100.0	48.0	25.0	44.5	68.8
MV2BV	0.2	30.1	2.2	0.9	1.3	2.2
IAROE-3yrAvg	-7.7	19.9	0.0	-0.3	-0.1	0.1
IAPP-ytd	-93.21	23.7	-0.1	-20.0	-8.8	3.7

Looking at Table 2, there are 220 firms (73% of the sample) with no outside directors on board. Among firms that do have outsiders on board, approximately 70% of the firms have less than three outside directors. These figures for outside directors are very low compared to firms in the US and the UK.

Table 2. Frequencies of board variables

	IndepOnBoard		Board Size	
	Firm Count	%	Firm Count	%
0	220	73	0	0
1	12	4	0	0
2	28	9	0	0
3	17	6	16	5
4	9	3	31	10
5	9	3	69	23
6	2	1	30	10
7	2	1	64	21
8	1	0	19	6
9	0	0	27	9
10	0	0	17	6
11	0	0	10	3
12+	0	0	17	6
Total	300	100	300	100

Table 3 compares firms that have no independent outside directors with firms that have at least one outside director. Firms with outsiders on board outperform their peers on six out of eight performance indicators, at a 10% significance level. Out of the remaining two indicators, one is marginally insignificant (P: 0.103). In other words, firms with outsiders on board have higher ROE both for current year and for the three-year average. The industry-adjusted three-year average ROE is also higher for firms with outsiders on board.

Additionally, growth prospects measured in terms of the market-to-book ratio is higher for firms with outsiders on board. Moreover, market price performance is higher for firms with outsiders on board. This effect continues to hold for industry-adjusted price performance as well.

Table 3. T-test for the difference in means

Performance Vrbl.	IndepOnBoard:0	IndepOnBoard \geq 1	P-value
ROE-cy	0.22	0.48	0.045
ROE-3yrAvg	0.22	0.76	0.026
IAROE-cy	-0.06	0.23	0.103
IAROE-3yrAvg	-0.17	0.38	0.011
MV2BV	2.06	2.50	0.003
IAMV2BV	-0.24	0.00	0.123
PP-ytd	13.44	19.02	0.082
IAPP-ytd	-3.56	9.89	0.036

In Table 4, a multivariate regression analysis looks into the drivers of the positive effects documented above. In this table, there are two separate regressions to measure corporate financial performance, CFP_i from equation (1), proxied by 'IAROE-3yrAvg' to measure accounting performance and 'IAPP-ytd' to measure market performance³. In terms of accounting performance, the number of outsiders on board and board size are positively associated with performance. However, board independence ratio is negatively associated with performance. In other words, firms with larger boards and greater number of outside directors perform better than their peers. The negative association between performance and board independence ratio points to a reverse u-shaped curvilinear relationship. In other words, findings support the *optimisation view* which suggests a trade-off between strengths and weaknesses of inside and outside directors. Therefore, as the independence ratio increases, after a certain point it leads to a suboptimal board and actually serves to reduce performance.

Table 4. Multivariate Regression Analysis

Variables	IAROE-3yrAvg		IAPP-ytd	
	Coeff.	P-value	Coeff.	P-value
Intercept	1.32	0.083	32.60	0.087
IndepOnBoard	0.67	0.001	8.69	0.079
IndepRatio	-3.84	0.006	-55.03	0.117
BoardSize	0.20	0.000	2.63	0.014
LnEquity	-0.25	0.110	-7.43	0.121
MV2BV	0.01	0.809	8.83	0.000
FreeFloat	0.00	0.749	0.13	0.160
BIG4 Dummy	-0.21	0.348	11.63	0.036
XKURY Dummy	0.08	0.850	-1.04	0.921
Industry Dummies	yes	n/s	yes	n/s
Adj. R²	0.114		0.372	
F (P-value)	5.428	(0.000)	21.358	(0.000)

n/s: not significant.

Looking at market performance, number of outsiders on board and board size are positively related to industry-adjusted price performance. Firms' growth prospects and being audited by the big-4 accounting firms are also positively related to price performance. In other words, firms that have large boards, higher number of outsiders on board, higher growth prospects and being audited by the big-4 accountants perform better than their peers, in terms of market performance. Considering both accounting and market price performance, it is possible to say that firms with bigger boards and higher number of outsiders outperform their peers. This finding also makes sense intuitively, since the monitoring role of outside directors becomes more important in a bigger board.

³ Alternative specifications of these variables produce qualitatively very similar results, not provided here for space reasons.

5. Summary and Concluding Remarks

This study documents a positive performance effect of having independent outside directors on corporate boards of Turkish firms. Specifically, there is a statistically significant positive association between the number of outside directors on board and industry adjusted accounting and market price performance measures. This effect holds even after including a number of variables to control for firm size, firms' growth prospects, ownership concentration, as well as auditor, corporate governance environment and industry effects. This finding supports the *entrenchment view*, in the sense that appointing outside directors is an effective way of monitoring the board and hence improving performance. However, in terms of the board independence ratio, findings support the *optimisation view*. That is, increasing the number of outsiders beyond a certain level results in a suboptimal board and consequently inferior performance. Determining what exactly constitutes this level is beyond the scope of this paper and is an area for future research.

The findings from this study should be interpreted in light of its limitations regarding the specific time span involved which marks the beginning of new regulations concerning corporate boards with the introduction of the XKURY index at the ISE. Another limitation, one which is impossible to avoid, is the board endogeneity issue first modeled by Hermalin and Weisbach (1998) and frequently cited by other work within the corporate boards area. Future work detailing the specifics of the board independence issue as well as the optimal level of outside directors on corporate boards will be invaluable to our understanding of the bigger picture.

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