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# DO CORPORATE GOVERNANCE INDEX COMPANIES OUTPERFORM OTHERS?: EVIDENCE FROM TURKEY

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#### **Abstract**

The purpose of the paper is to analyse whether properly implementing corporate governance principles make difference in performance of companies. With this purpose two analysis were conducted. Initially, performance measures of companies at the first year in the Corporate Governance Index  $(t_1)$  and the preceding year  $(t_0)$  were compared. Then, the difference between performance measures of Corporate Governance Index Companies and Istanbul Stock Exchange-ISE 50 companies was analysed. In this paper ROA is designated as an accounting based performance measure and Tobins Q is determined as market based performance measure of companies. Results of the analysis show that there is no significant difference in performance measures of Corporate Governance Index Comapnies and ISE 50 Companies. Likewise, the study revealed that there is no significant difference between performance measures of Corporate Governance *Index Companies in the year of*  $t_0$  *and*  $t_1$  ( $t_0$  = the preceding year of entrance to Corporate Governance Index,  $t_1$ = the first year in Corporate Governance Index).

Key Words: Corporate Governance Index, Corporate Governance in Turkey, Corporate Governance, Istanbul Stock Exchange, ISE.

## 1. INTRODUCTION

The collapse of Enron has focused international attention on corporate failures and the role of strong corporate governance. High profile corporate scandals have forced governments and regulators to reconsider fundamental issues of corporate governance. In response to corporate failures, in USA Sarbanes Oxley Act (2002) was enacted and similarly in UK Higgs Report (2003) and Smith Report (2003) were published. With the purpose of enhancing corporate governance practices in Turkey, Capital Market Board (CMB) issued the Corporate Governance Principles in 2003. Parallel to OECD principles, Corporate Governance Principles of Turkey were revised in 2005. Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Good corporate governance should induce the board and management to pursue the interests of the company and its shareholders. The proper implementation of Corporate Governance Principles facilitate effective monitoring, helps a firm to attract investment, raise funds with a low capital cost, strengthen firm performance, overcome financial crisis more easily and generate long term economic value for its shareholders. Weir and Laing state that governance structure designed in corporate governance best practices should provide more effective monitoring of the board and the decision making process. This in turn should improve performance because the monitoring mechanisms would ensure that shareholder interests were being promoted Weir, C., and Laing, D. (2001).

In Turkey, Istanbul Stock Exchange (ISE) listed companies are encouraged to comply with Corporate Governance Principles of Turkey. The implementation of the principles is optional. Nonetheless, companies should disclose the extent of compliance in corporate governance compliance report that is included in the annual report as a separate section. As of February 2011, there are five rating institutions approved by CMB to evaluate and rate the companies' compliance with Corporate Governance Principles of Turkey. ISE listed companies with a rating of minimum 6 out of 10 are eligible to be listed in ISE Corporate Governance Index which has been active since August 31, 2007. The aim of the ISE Corporate Governance index is to measure the price and return performances of ISE-listed companies which properly implement corporate governance best practices. The aim of the paper is to analyse whether properly implementing corporate governance principles has impact on companies' performance. This paper attempts to investigate the relationship between corporate governance and performance in two different models. First, the study examines whether to be listed in Corporate Governance Index affects companies' performance measures. Second, the paper compares performance of Corporate Governance Index Companies and Istanbul Stock Exchange (ISE) 50 Companies in order to evaluate if proper implementation of principles make difference in performance.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Corporate failures triggered interest in the link between corporate governance and firm performance. In the last decade considerable number of articles have been published concerning corporate governance and firm performance or value. While some of the researchers explored the relationship between particular dimensions of corporate governance and performance, others investigated the effect of overall corporate governance practices on performance. In prior studies concerning corporate governance structure; CEO duality, board size, percentage of outside directors in board, the proportion of non-executive directors in board, number of board monitoring committees and ownership concentration were the most common variables of corporate governance structure Ehikioya (2009), Haniffa and Hudaıb (2006), Abdullah (2004), Weir and Laing (2001), Bhagat S., Bolton B., (2008). Instead of considering just a single measure of corporate governance, those studies investigated the effect of particular dimensions of corporate governance on performance. Nonetheless, several studies include a constructed corporate governance index as a test or control variable in regressions explaining firm performance or value. Beiner, Drobetz, Schmid and Zimmermann (2006), Chen, Kao, Tsao, and Wu (2007), Garay and González (2008) Cheung, Y .L., Jiang, P., Limpaphayom P. and Lu T. (2010). Furthermore, some empirical studies investigate the relationship between corporate governance ratings and firm performance Bozec (2007a), Bosec and Bosec (2007b).

There are many different ways to measure financial performance. The most common measures that are used in corporate governance literature can be categorized into two main categories: accounting-based measures and market-based measures. Accounting based measures of performance are historical. They represent the impact of many factors, including the past successes of advice given from the board to the management team and are the traditional mainstay of corporate performance measures. On the other hand, market-based measures of firm performance relate to the overall value placed on the firm by the market and may not bear any relationship to asset valuations, current operations or even the firm's historical profitability. These valuations emphasise the expected future earnings of the firm and so are considered a forward-looking indicator that reflects current plans and strategies Kiel and Nicholson (2003). In conformity with prior studies, in this paper ROA is designated as an accounting based performance measure and Tobins Q is determined as market based performance measure.

Prior researches in developing economies provides evidence that, corporate governance and ROA are positively related Major and Marques (2009), Garay and González (2008) Kim, H.J., Yoon, S.S., (2006), Gürbüz, Aybars and Kutlu (2010). On the other hand, prior studies in developing countries reports inconclusive results for Tobin Q Garay and González (2008), Cheung (2010), Dwivedi (2005), Abdelkarim and Alawneh (2009). In Turkey, studies regarding corporate governance has increased rapidly after the enactment of Corporate Governance Principles of Turkey in 2003 and coming into existence of ISE Corporate Governance Index in 2007. Considerable number of the studies focused on the development of corporate governance in Turkey, analysing the content of corporate governance rating reports, managements perception regarding cororate governance and analysing the return performance of ISE Corporate Governance Index. Nonetheless, there are several studies investigating the relationship between corporate governance practices and firm performances.

Karamustafa et al. (2009) investigated if eight corporate governance index companies outperform in 2007 (first year of Index) compare to prior years. The analysis showed that there is a significant difference in asset turnover, ROA and ROE of Index companies compare to prior years. On the other hand, they could not find substantial evidence to conclude that current ratio, debt ratio, financial leverage ratio are higher compare to prior years. Since 2007, Corporate Governance Index has been growing rapidly. As of December 31, 2010, there are 31 companies listed on ISE Corporate Governance Index. Following Karamustafa et al., in this study I investigated if there is a significant difference in performance of companies between t<sub>1</sub> and t<sub>0</sub> which t<sub>1</sub> represents the companies' first year in Corporate Governance Index and t<sub>0</sub> represents the preceding year. This study emprically tests the following hypthesis:

Ho: There is no difference in performance of Corporate Governance Index companies between t<sub>0</sub> and t<sub>1</sub>.

Gürbüz et al. (2010) carried out a study to investigate whether firms' corporate governance practices lead to better financial performance in Turkey. The findings of the study supported the argument that corporate governance practices enhance firm financial performance. The second aim of their study is to determine whether companies engaging in corporate governance practices outperform others. They concluded that companies listed on the Corporate Governance Index outperform those not listed in 2007. However, for the years 2005 and 2006, non corporate governance index companies are the outperformers.

Following Gürbüz et al., I explored if corporate governance index companies perform better than non corporate governance index companies which are listed in Istanbul Stock Exchange (ISE) 50 in 2010. The second hypothesis of this study is given below:

Ho: In 2010, there is no difference between performance of Corporate Governance Index companies and non corporate governance index companies that are listed in ISE-50.

### 3. RESEARCH METHODOLOGY

## 3.1 Sample Selection

Samples are drawn from companies listed on the Istanbul Stock Exchange (ISE). I selected two indexes of ISE; Corporate Governance Index and ISE 50 index. Corporate Governance Index is a index that measures the return and performans of ISE listed companies that implement principles appropriately. There are 31 companies quoted at Corporate Governance Index by December 2010 and those companies are listed in Appendix I. ISE 50 index comprises some of the Corporate Governance Index Companies. Therefore, in terms of non corporate governance index companies, the exclusion of Corporate Governance Index Companies leaves a sample of 37 companies. However, one company's financial information for 2010 could not be reached and this company is excluded from analysis. Finally, the sample of non corporate governance index companies comprises 36 companies.

# 3.2 Methodology and Findings

In the analysis of first hypothesis paired sample t-test is performed. In this analysis  $t_0$  represents the preceding year of entrance in corporate governance index and  $t_1$  represents the first year in the corporate governance index. Table 1 shows a descriptive statistics for Corporate Governance Index Companies in  $t_0$  and  $t_1$ . In the year of  $t_0$ , the mean (standard deviation) of ROA is .036 (.119) and the mean (standard deviation) of Tobin Q is 1.205 (.473). Nonethless, in the year of  $t_1$ , the mean (standard deviation) of ROA and Tobin Q are .046 (.084) and 1.205 (.389) respectively.

Table 1: Descriptive Statistics for Corporate Governance Index Companies in t<sub>0</sub> and t<sub>1</sub>

					Std.	
	N	Min.	Max.	Mean	Deviation	Variance
TobinQ_t <sub>0</sub>	31	.37	2.16	1.205	.473	.224
$TobinQ_t_1$	31	.64	2.08	1.205	.389	.151
$ROA_t_0$	31	35	.31	.036	.119	.014
$ROA_t_1$	31	21	.23	.046	.084	.007

The results of the paired sample t-test is given in Table 2. Table reports the difference between the mean scores of ROA and the difference between the mean scores of Tobins Q. The table also shows the standard deviation of differences between the means and the standard error of the differences between companies' ROAs and Tobin Qs. The fact that the t-value is a minus number tells that in  $t_0$  Corporate Governance Index companies had a smaller mean of ROA than  $t_1$ . But the two tailed probability for ROA tells that there is no significant difference in companies' means of ROA between  $t_0$  and  $t_1$  (t(30)=-.44,p>.05). Similarly, analysis of Tobins Q reveals that there is not a significant difference in companies' means of Tobin Q between  $t_0$  and  $t_1$  (t(30)=-.00,p>.05).

**Table 2: Results of Paired Samples t-test** 

	Mean	Std. Deviation	t	df	P
$TobinQ_t_0 - TobinQ_t_1$	.000	.387	.004	30	.996
$ROA_t_0 - ROA_t_1$	010	.130	441	30	.661

With the aim of analysing differences in performance measures between Corporate Governance Index Companies and non corporate governance index companies that are listed in ISE 50, independent t-test is performed. In this analysis, Corporate Governance Index consists of 31 companies and Non Corporate Governance Index consists of 36 companies. Descriptive statistics of Corporate Governance Index Companies for the year of 2010 is shown in Table 3. In 2010, the mean (standard devaition) of ROA and Tobin Q are .050 (.055) and 1.349 (.420) respectively.

Table 3: Descriptive Statistics of Corporate Governance Index Companies for the Year of 2010

	N	Min.	Max.	Mean	Std. Dev.	Variance
TobinQ	31	.77	2.39	1.349	.420	.176
ROA	31	06	.22	.050	.055	.003

Descriptive statistics of non corporate governance index companies that are listed in ISE 50 is given in Table 4. In 2010, the mean (standard deviation) of ROA is .093 (.119) and the mean (standard deviation) of Tobin Q is 1.533 (1.418).

Table 4: Descriptive Statistics of Non Corporate Governance Index Companies that are Listed in ISE-50 for the Year of 2010

	N	Min.	Max.	Mean	Std. Dev.	Variance
TobinQ	36	.54	7.38	1.533	1.418	2.012
ROA	36	02	.53	.093	.119	0014

Analysis of independent samples reveals that, on average, Corporate Governance Index Companies have lower ROA (M=.05, SD=.05), than non corporate governance index companies that are listed in ISE 50 (M=.09, SD=.11). But, this difference is not significant t(51) =-1.91, p>.05. Similarly, no statistical significant has been found for the variation between the Tobin Q of corporate governance index companies and non corporate governance index companies. Corporate Governance Index Companies have lower Tobin Q (M=1.34, SD=.42), than non corporate governance index companies that are listed in ISE 50 (M=1.53, SD=1.41). However, this difference is not significant t(41) = -.74, p>.05. The results of independent t-tests are given in Table 5 and Table 6.

Table 5: Results of Independent t-test for Tobin Q

	N	Mean	Std. Dev.	df	t	P
Cor. Gov.						
<b>Index Companies</b>	31	1.349	.420	41.992	-0.742	.462
Non Cor. Gov.						
<b>Index Companies</b>	36	1.533	1.418			

Table 6: Results of Independent t-test for ROA

	N	Mean	Std. Dev.	df	t	P
Cor. Gov.						
Index Companies	31	.050	.055	51.118	-1.913	.061
Non Cor. Gov.						
Index Companies	36	.093	.119			

## 4. CONCLUSION

This paper has examined whether properly implementation of corporate governance principles make difference in performance of companies in Turkey. Although theory suggests that greater compliance with corporate governance principles is positively related with performance, results of this study show that there is no significant difference in performance of Corporate Governance Index Companies and non corporate governance index companies in Turkey when performance is measured in terms of ROA and Tobin Q. Moreover, contrary to Karamustafa et al., the result of the study revealed that there is no significant difference in performance of Corporate Governance Index Companies between the year of  $t_0$  and  $t_1$  ( $t_0$  = the preceding year of entrance to Corporate Governance Index,  $t_1$ = the first year in Corporate Governance Index). The paper concludes that properly implementing corporate governance principles and to be listed in Corporate Governance Index does not associated with ROA and Tobin Q in Turkey.

**Apendix 1: Corporate Governance Index Companies** 

	CODE	COMPANY	First Year in Index
1	AEFES	ANADOLU EFES	2008
2	ALBRK	ALBARAKA TÜRK	2010
3	ARCLK	ARÇELİK	2009
4	ASYAB	ASYA KATILIM BANKASI	2008
5	AYGAZ	AYGAZ	2010
6	CCOLA	COCA COLA İÇECEK	2009
7	DENTA	DENTAŞ AMBALAJ	2008
8	DOHOL	DOĞAN HOLDİNG	2009
9	DYHOL	DOĞAN YAYIN HOL.	2006
10	HURGZ	HÜRRİYET GZT.	2007
11	IHEVA	İHLAS EV ALETLERİ	2010
12	IHLAS	İHLAS HOLDİNG	2010
13	ISFIN	İŞ FİN.KİR.	2009
14	LOGO	LOGO YAZILIM	2009
15	OTKAR	OTOKAR	2008
16	PETKM	PETKİM	2009
17	PRKAB	PRYSMIAN KABLO	2009
18	PRKME	PARK ELEK.MADENCİLİK	2010
19	SKBNK	ŞEKERBANK	2009
20	TAVHL	TAV HAVA LİMANLARI	2009
21	TOASO	TOFAŞ OTO. FAB.	2007
22	TRCAS	TURCAS PETROL	2010
23	TSKB	T.S.K.B.	2009
24	TTKOM	TÜRK TELEKOM	2009
25	TTRAK	TÜRK TRAKTÖR	2007
26	TUPRS	TÜPRAŞ	2007
27	VESTL	VESTEL	2007
28	VKFYT	VAKIF YAT. ORT.	2009
29	YAZIC	YAZICILAR HOLDING	2010
30	YKBNK	YAPI VE KREDİ BANK.	2008
31	YYGYO	Y VE Y GMYO	2007

**Appendix 2: Non Corporate Governance Index Companies that are Listed in ISE-50** 

	CODE	COMPANY
1	AKBNK	AKBANK
2	AKENR	AKENERJİ
3	AKGRT	AKSİGORTA
4	ANSGR	ANADOLU SİGORTA
5	ASELS	ASELSAN
6	BAGFS	BAGFAŞ
7	BIMAS	BİM MAĞAZALAR
8	ECILC	ECZACIBAŞI İLAÇ
9	EKGYO	EMLAK KONUT GMYO
10	ENKAI	ENKA İNŞAAT
11	EREGL	EREĞLİ DEMİR ÇELİK
12	FENER	FENERBAHÇE SPORTİF
13	FROTO	FORD OTOSAN
14	GARAN	GARANTİ BANKASI
15	GLYHO	GLOBAL YAT. HOLDİNG
16	GUBRF	GÜBRE FABRİK.
17	HALKB	T. HALK BANKASI
18	IPMAT	İPEK MATBAACILIK
19	ISCTR	İŞ BANKASI
20	ISGYO	İŞ GMYO
21	KARTN	KARTONSAN
22	KCHOL	KOÇ HOLDİNG
23	KONYA	KONYA ÇİMENTO
24	KOZAA	KOZA MADENCİLİK
25	KOZAL	KOZA ALTIN
26	KRDMD	KARDEMİR
27	METRO	METRO HOLDÍNG
28	NETAS	NETAŞ TELEKOM.
29	SAHOL	SABANCI HOLDİNG
30	SISE	ŞİŞE CAM
31	SNGYO	SİNPAŞ GMYO
32	TCELL	TURKCELL
33	TEBNK	T.EKONOMİ BANK.
34	THYAO	TÜRK HAVA YOLLARI
35	TKFEN	TEKFEN HOLDİNG
36	ULKER	ÜLKER BİSKÜVİ
37	VAKBN	VAKIFLAR BANKASI

**Appendix 3: Definiton of Variables** 

ROA	Net Income / Average Total Assets
TOBIN'S Q	Market Value of Assets/Total Assets
	(Book Value of Total Debt + Market Value of Equity) / Total Assets

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