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ANALYZING THE EFFECTS OF CORPORATE SOCIAL RESPONSIBILITY LEVEL ON THE FINANCIAL PERFORMANCE OF COMPANIES: AN APPLICATION ON BIST CORPORATE GOVERNANCE INDEX INCLUDED COMPANIES

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ABSTRACT

The aim of this study is to analyze the relationship between corporate social responsibility level and financial performance in a developing country, Turkey. For this purpose, financial data derived from annual reports of the 33 companies included in BIST Corporate Governance Index between years 2006-2012 has been analyzed with panel data analysis. According to the analysis, there is a meaningful and positive relationship between corporate social responsibility and market value/book value ratio, return on equity ratio, return on assets ratio, leverage ratio and net profit. On the other hand, there is no meaningful relation between corporate social responsibility and companies' total sales and return on sales ratio.

Keywords: *Corporate Responsibility Level, Financial Performance, Panel Data Analysis, BIST Corporate Governance Index, Turkey.*

KURUMSAL SOSYAL SORUMLULUK DÜZEYİNİN İŞLETMELERİN FİNANSAL PERFORMANSINA ETKİSİNİN İNCELENMESİ: BIST KURUMSAL YÖNETİM ENDEKSİ ÜZERİNE BİR UYGULAMA

ÖZET

Bu çalışmanın amacı; gelişmekte olan bir ülke olarak Türkiye'de işletmelerin kurumsal sosyal sorumluluk düzeyleri ile finansal performansları arasındaki ilişkiyi analiz etmektir. Bu amaçla BIST Kurumsal Yönetim endeksinde yer alan 33 işletmenin yıllık faaliyet raporlarından elde edilen finansal veriler panel veri analizi ile analiz edilmiştir. Analiz sonuçlarına göre, işletmelerin kurumsal sosyal sorumluluk düzeyleri ile piyasa değeri/defter değeri oranı, özsermaye karlılığı oranı, aktif karlılığı oranı, kaldıraç oranı ve net kârı arasında pozitif ve anlamlı ilişki olduğu tespit edilmiştir. Diğer taraftan, işletmelerin kurumsal sosyal sorumluluk düzeyleri ile toplam satışlar ve satış kârlılığı oranı arasında anlamlı bir ilişki tespit edilememiştir.

Anahtar Kelimeler: *Kurumsal Sosyal Sorumluluk Düzeyi, Finansal Performans, Panel Veri Analizi, BIST Kurumsal Yönetim Endeksi, Türkiye.*

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1. Introduction

The concept of "corporate social responsibility (CSR)" has become an important field in management literature since 1970s (Keith, 1973). Customers, suppliers, employees, community groups, governments expect companies to undertake additional investments in social areas and are asking companies to be accountable for CSR issues (Quinn, Mintzberg, & James, 1987; McWilliams & Donald Siegel, 2000). Thereby, social responsibility became an important corporate duty for companies. Regarding to these, CSR activities have started to hold place in the agenda of companies. Local and global unions/organizations, such as OECD, also have an impact on CSR activities to become widespread in companies. There is an increasing demand for transparency and growing expectations for companies to measure, report, and continuously improve their social performance (Tsoutsoura, 2004). In recent years, it is drawing attention that more than half of the Fortune 1000 companies publish CSR reports. Also companies have started to organize CSR projects in areas such as environment, education, health etc. Correspondingly, CSR activities have become a current topic also in Turkey. The number of companies organizing projects and publishing CSR related reports has been increasing by years. Despite these factors, a debate about the consequences of CSR activities has occurred in management field. Given the significance of corporate social responsibility in corporate decision making, the relationship between companies' social performance and their financial performance became an important topic. Some researchers emphasize that CSR activities entail additional investments and creates additional costs for companies. This idea does not support CSR activities due to the inconsistent efforts to maximize profits (McWilliams & Siegel, 2000). Those holding this view propose that companies face economic disadvantage because of the cost of CSR activities. On the other hand, other researchers present that social performance of a company effects its financial performance positively albeit indirectly. This view propose that companies with high social performance can have better reputation both within the business community and among customers, can attract talented employees, can increase the degree of motivation and commitment of existing employees etc. By examining the related literature, it can be seen that a consensus on this relationship has not been achieved yet. Regarding to this, the current study aims to analyze the relationship between social responsibility level and financial performance of companies in a developing country context, Turkey. The paper is organized in four sections. The next section involves the literature view. The third section introduces research design and methodology. Finally, section four presents the main findings and limitations of the study.

2. Literature View

The focal point of the concept CSR is the belief that the companies and the society are nested each other. Based on the idea of "social contract" that characterizes the relationship between companies and society; it is assumed that society expects from companies to behave in an appropriate way to fulfill the obligations for them beyond economic and legal ones. As Davis (1973) emphasizes, CSR is much more than fulfilling the requirements of the law, CSR requires decision makers to take actions that protect and improve the welfare of society as a whole along with their own interests (Davis, 1973; Davis & Blomstrom, 1966). In this context, CSR can be defined as the organization's responsiveness to the needs of its stakeholders which is defined as "*those groups who can affect or are affected by the achievement of an organization's* *purpose"* by Freeman (1984). Responsiveness can be defined as the capacity of a company to respond to social pressures (Carroll, 1979). In this point of view; a company is expected to behave in a responsible manner to its shareholders, customers, employees and society. In this context; it may be useful to mention Carroll's four part categorization of responsibilities (Carroll, 1979). First one defined as "economic responsibilities" are vital for the company to satisfy expectations of shareholders. Second, "legal responsibilities" emphasize society's expectations from companies to operate within the framework of legal requirements. Third one named as "ethical responsibilities" are the ones above legal requirements. These are not described in law but society expects company to perform this kind of responsibilities although they are not mandatory. The last one, "discretionary responsibilities" are completely voluntary behaviors and actions. Society does not have an expectation about this kind of responsibilities. They are left to the managerial initiative. This categorization presents a wider definition of CSR; economic, legal, ethical, and discretionary expectations of society from companies.

While CSR emphasizes obligations -accountability and responsiveness- to society, Corporate Social Performance (CSP) emphasizes the outcomes and results of these obligations. Donna & Wood (1991) defined CSP as "*a business organization's configuration of principles of social responsibility, processes of social responsiveness and policies, programs and observable outcomes as they relate to the firm's societal relationships*". In other words, CSP measures the extent to which a company considers CSR in its operations and the impact it has on the society.

From this point forward, the relationship between social and financial performance of companies is examined comprehensively based on related literature. There are various approaches about this interaction. Previous literature shows the argument about the basis of this relationship. Classical economic doctrine with "self-interest idea" focuses on the company itself and asserts economic responsibilities only to shareholders. On the basis of this approach, there is the admission that the shareholders do not appreciate their profits being spent on social activities which they do not consider beneficial for themselves. This is because of the assumption that utilization of resources for social responsibilities instead of operations would reduce profits. Based on this assumption it is suggested that there is a negative link between social and financial performance, as socially responsible actions increase costs and therefore worsens company's competitive position and economic performance (Freidman, 1970; Vance, 1975; McGuire et al., 1988). In this point of view, it is proposed that social responsibilities should be left to other companies of free market (Friedman, 1970). On the other hand, contrary approaches basing on "long-run self interest idea" indicates that an organization should be accountable to the society rather than simply its shareholders (Crowther & Rayman-Bacchus, 2004). As a requirement of social contract, society expects company to accomplish a variety of social goods (Davis, 1973). It is assumed that meeting these expectations will bring profits to company in the long run.

This relationship between CSR and financial performance has been the subject of many empirical studies. While some of them focus on short-term, some of them focus on long term financial performance. Generally; relationship between corporate social performance and long term financial performance is measured by utilizing accounting or financial measures of profitability (Tsoutsoura, 2004). Literature shows that studies examining the long term impact have mixed results.

One perspective suggests that there is no correlation between social and financial performance. There are empirical studies which found no significant impact of social performance on financial performance (Aupperle, Carroll, & Hatfield, 1985; Ullman, 1985; McWilliams & Siegel, 2000; Lee, 2006; Becchetti et al., 2005).

A second perspective suggests that social performance of the company is negatively related with financial performance. The main reason for this is the acceptance of investments in CSP is costly for the company (Alexander & Buchholz, 1978; Becchetti et al., 2005). This perspective expresses the argument that investments in social performance projects are contrasting to the benefits of shareholders and investors (Vance, 1975; Barnett, 2005).

The third, and the last, perspective suggests that there is a positive correlation between social and financial performance of the company (Bragdon & Marlin, 1972; Bowman & Haire, 1975; Parket & Eibert, 1975; Cochran & Wood, 1984; Waddock & Graves, 1997; Orlitzky et.al., 2003). The basic point of this suggestion is the assumption that financial benefits of investments for social performance exceed its costs (Barnett, 2005). It is asserted that activities and investments on social responsibilities of companies will increase profitability in the long term. It is argued that CSP investments produce benefits in various ways. First of all, socially responsible companies build up good corporate image and reputation. According to this, an organization's level of CSP can lead to building a positive image and reputation at customers, investors, bankers, and suppliers (Fombrun & Shanley 1990; Orlitzky et al., 2003). This positive climate can result in companies to be perceived much more legitimate than the less socially responsible ones. Consumers also favor companies and brands which are socially responsible and have good reputations. It has also an impact on employee side. Companies perceived to have high social performance often have an increased ability in attracting and retaining talented, diverse and higher quality workforce (Turban & Greening, 1997). This leads to motivation, organizational commitment and therefore reduced turnover, recruitment, and training costs. The impact of social performance has economic consequences as much as the social ones on employees' attitudes and performance in work place. Studies show that companies that behave in socially responsible manner, such as improving working conditions and labor practices, for their employees also experience increased productivity and reduced error rates. Furthermore, as economic benefits; socially responsible companies have more stable earnings and growth which provide a strong market positioning, competitiveness and less downside volatility in the market (Moskowitz, 1972; Parket & Eibert, 1975; Soloman & Hansen, 1985). For all that, because of the transparent structure of CSR activities and principles, CSR allows company to act as a moral agent in society and behave ethically. In addition to all these, a company perceived as socially responsible can benefit from this reputation within the business community by having increased ability to attract capital and trading partners. Scholars have argued that enhanced social performance may lead to obtaining better resources (Cochran & Wood, 1984; Waddock & Graves, 1997). Researches show that institutional investors allocate funds using social criteria. This means investors favor socially responsible companies. In this context, it is likely to admit that companies may take the advantage of CSR activities in order to increase their efficiency, reputation, brand and corporate image (Porter & Karamer, 2006). In return of this, companies may be perceived more legitimate and also attract new customers which increases companies' profitability and competitiveness in the market (Flammer, 2013).

Recent studies ~~give~~ reached this evidence (Uadiale & Fagbemi, 2012; Ersan & Kaleem, 2012). To understand and analyze this relationship, it is important to measure both social and financial performances of companies.

There are some models in the literature that are utilized in measuring social performance. One of them is Carroll (1979)'s model which indicates four categories of social responsibilities of companies; economic, legal, ethical and discretionary responsibilities. This model gives a framework about the link between four kinds of responsibilities of companies but it is criticized because of the dearth about the measurement of social performance (Clarkson, 1995). Second model is Wartick & Cochran (1985)'s model which is a macro analysis handling social responsibilities and social performance separately. The authors created a social performance model consisting of three dimensions; principles, processes, and politics. Principles arise ~~by~~ from the social contract between company and the society with a philosophic aspect. Processes define the response of the company to social problems and expectations by corporate aspect. And lastly, politics define the approach to social problems within the organization by organizational aspect (Tak, 2009). Wood (1985), by developing Wartick & Cochran (1985)'s model, emphasizes the social outcomes of CSR. According to this model, outcomes are the only way to observe and assess social performance of companies. Another model for measuring social performance was proposed by Clarkson (1995). In his model, Clarkson defines three levels of measurement; *corporate level* which measures the relationship between company and society, *organizational level* which measures the relationship between company and stakeholders, and *individual level* which measures the relationship between managers and stakeholders. These models have been criticized for focusing on processes rather than results. It is suggested that result-orientated approaches are better to reflect the degree of companies' fulfillment of expectations of its stakeholders (Clarkson, 1995).

In recent years, various methods and instruments are used to measure companies' social performance. Voluntary standards such as ISO 14000, OHSAS 18000, and Social Accountability (SA) 8000, United Nations' global compact, Global Reporting Initiative guidelines can be listed among them. Also in recent years, an increasing number of companies declare their social performances in their annual reports. In addition to these, there are indexes such as Fortune, KLD and Domini 400, (Mishra & Suar, 2010; Tak, 2009). KLD index which was tested for construct validity by Sharfman (1996) is the most commonly used index for measurement of CSR performance. This index measures CSR performance based on five dimensions: product issues, employee relations, community relations, diversity issues, and environmental issues. At this point, it should be noted that these indexes are often used in American companies and are not very common in Turkey (Arsoy, et al., 2012). Due to the lack of acceptable social responsibility index in Turkey, we prefer to measure social performance of companies by the rating scores of their corporate governance in *Istanbul Stock Exchange Corporate Governance Index* ranking which includes social responsibility performance.

For measuring financial performance of the companies, various methods, such as accountant based or market based measures, can be used. In empirical studies testing the relationship between social performance and financial performance, the most commonly used accountant based measures are the return on assets (ROA) and the return on equity (ROE). While ROA measures how profitable a company's assets are in generating revenue, ROE measures firm's efficiency in using investment funds to create increased earnings, return on equity. Among the market based methods, market value/book value (MV/BV) is the most common measure. A brief explanation about financial measures is given in the methodology part of the study.

In the light of the literature, the aim of this study is to research if companies' social responsibility level has a positive effect on their financial performance by utilizing panel data analysis.

3. Research Design and Methodology

3.1. Data Set

Data used in this study is obtained from Borsa Istanbul Corporate Governance Index's stakeholder sub-section scores belonging to companies incorporated in the study. In order to measure financial performance of companies generally accepted financial performance indicators are used.

In our country, corporate governance principles have been comprised by Capital Markets Board (CMB, 2003) in 2003 and these principles are divided into four main sections as shareholders, public disclosure and transparency, stakeholders and board of directors. CMB notified rating agencies determine a corporate governance rating score, as a result of the evaluation of the company for compliance to all corporate governance principles. Due to the absence of a corporate social responsibility and sustainability scores in Turkey, stakeholder sub-section score including also social responsibility performance is used as an indicator of social responsibility in this study. Borsa Istanbul Corporate Governance Index's stakeholder sub-section covers five parameters which are companies' policies about stakeholders, promoting stakeholders' participation in corporate management, companies' human resource policies, consumer and supplier relations, ethical rules and social responsibility performance (CBM, 2011).

In measurement of the corporate social responsibility, some scoring systems are used in the literature such as Fortune magazine ratings of a company's responsibility to the community and environment, Kinde, Lydenberg, Domini (KLD) index or CEP ratings. From these, KLD scoring system is gathering information from companies related to five key dimensions of social responsibility: community relations, employee relations, diversity issues, product issues and environmental issues (Arsoy et al., 2013). Examining the corporate governance principles that have been comprised by Capital Markets Board of Turkey, it can be noticed that Borsa Istanbul Corporate Governance Index's stakeholder sub- sections' parameters have compatibility with KLD ratings social responsibility dimensions. Therefore, stakeholder sub- section rating scores are accepted as an indicator of corporate social responsibility in this study.

Financial performance refers to the act of performing financial activity and the degree to which financial objectives being or has been accomplished. In order to evaluate financial condition and performance of a firm, the financial analyst needs some financial indicators to be applied on various financial aspects.

Financial performance indicators used in this study are as follows:

1) MV/BV Ratio : Market Value/Book Value
2) Return on Equity (ROE) Ratio: Net Profit After Taxes/Total Shareholders Equity
3) Return on Assets (ROA) Ratio: Net Profit After Taxes/Total Assets
4) Return on Sales (ROS) Ratio: Net Profit After Taxes/Net Sales
5) Leverage Ratio (D/A): Total Debt/Total Assets
6) Total Sales (TS)
7) Net Profit (NP)

3.2. Purpose and Scope of the Research

Purpose of this study is to analyze the effect of corporate social responsibility on financial performance of companies included in XKURY index, thus having a high sense of social responsibility, between years 2006-2012. The study covers the period 2006-2012 because XKURY index has been calculated as of the year 2006 in our country. In the study, firstly public companies included in the XKURY index between years 2006-2012 continuously have been determined. As their reporting system is different, financial institutions were not included in the analysis; analysis has been realized on 33 companies. Companies included in the analysis are listed on Appendix-1. Financial data used in the study are derived from annual financial reports published on the Borsa Istanbul web site (www.borsaistanbul.com) and Public Disclosure Platform web site (http://www.kap.gov.tr/); and stakeholder sub-section scores are derived from the Turkish Corporate Governance Association (http://www.tkyd.org/tr/derecelendirme.asp). Analysis is carried out by utilizing Stata 10 program.

3.3. Research Method and Models

In this study to determine the effect of corporate social responsibility on financial performance, panel data analysis method that combines horizontal profile observations of the companies between years 2006-2012, has been used.

As the number of institutions listed in Borsa Istanbul Corporate Governance Index varies from year to year, panel data set used has unbalanced panel data characteristic and regression models used are as follows:

Model 1: Corporate governance level effect on MV/BV ratio
$MV/BV\ i,t = \beta_0 + \beta_1 SSR\ i,t + \beta_2 TA\ i,t + \boldsymbol{\varepsilon}_i$

Model 2: : Corporate governance level effect on ROE
$ROE\ i,t = \beta_0 + \beta_1 SSR\ i,t + \beta_2 TA\ i,t + \boldsymbol{\varepsilon}_i$

Model 3: Corporate governance level effect on ROA
$ROA\ i,t = \beta_0 + \beta_1 SSR\ i,t + \beta_2 TA\ i,t + \boldsymbol{\varepsilon}_i$

Model 4: Corporate governance level effect on ROS
ROS i,t = $\beta_0 + \beta_1$ SSR i,t + β_2TA i,t + $\boldsymbol{\varepsilon}_i$

Model 5: Corporate governance level effect on leverage ratio
D/A i,t = $\beta_0 + \beta_1$ SSR i,t + β_2TA i,t + $\boldsymbol{\varepsilon}_i$

Model 6: Corporate governance level effect on total sales
TS i,t = $\beta_0 + \beta_1$ SSR i,t + β_2TA i,t + $\boldsymbol{\varepsilon}_i$

Model 7: Corporate governance level effect on net profit
NP i,t = $\beta_0 + \beta_1$ SSR i,t + β_2TA i,t + $\boldsymbol{\varepsilon}_i$

In the models, stakeholder sub- section rating scores (SSR) used as an indicator of corporate social responsibility is independent variable; MV/BV ratio, return on equity, return on assets, return on sales, leverage ratio, total sales and net profit value data related to financial performance indicators are dependent variables; the natural logarithm of total assets (lnTA) used as an indicator of company size is control variable.

3.4. Analysis and Findings

3.4.1. Descriptive Statistics

In Table 1, descriptive statistics for variables are given.

Table 1: Descriptive Statistics for Variables

Variable	Min	Max	Mean	Std. Dev.
CSR	0.6630	0.9821	0.8849	0.0752
lnTA	6.2799	9.7064	7.842558	1.106027
MV/BV	0.0093	4.9202	1.680776	1.065877
ROE	-1.1261	0.4657	0.0969706	0.2017911
ROA	-0.2556	0.2241	0.050488	0.783684
ROS	-0.4574	8.9138	0.205732	0.8915673
D/A	0.0018	0.8511	0.519261	0.2060641
TS	1.047.914	46.100.000.000	1.080.000.000	5.340.000.000
NP	-235.684.263	293.202.668	24.092.638	64.345.795,39

As shown on Table 2, corporate governance rating score for included companies in the analysis is 0.88 the highest and 0.66 is the lowest. The average value of total assets 578.541.930 TL and standart deviation of total assets is 961.355.155 TL. For years included in the analysis, one of the growth indicators of companies, MV/BV ratio has the lowest value 0.0093, the highest value 4.9202 and mean value 1.68. Return on equity ratio, comparing after tax profit of the company and owner's equity paid to company by shareholders (Van Horne & Wachowicz, 1995), is approximately 9%. Return on assets ratio, showing how effective the company uses its actives in its operations, in other words, how much income derived from actives (Peterson,

1994) is approximately 5%. Return on sales ratio, reflecting net income received from sales over each money unit (Van Horne & Wachowicz 1995) is approximately 20%. Leverage ratio, reflecting actives financed with debt (Robinson, 2004) has the highest value of 0.85 and lowest value of 0.0018. The average value of total sales is 1.080.000.000 TL. The lowest net profit is -235.684.263 TL whereas the highest net profit is 293.202.668 TL and average net profit is 24.092.638 TL.

3.4.2. Panel Data Analysis

The results of Breusch- Pagan Lagrange Multiplier Test is shown on Table 2 applied to determine either the simple OLS regression or fixed effect regression is more convenient in estimation of models used in the analysis:

Table 2: The Results of Breusch- Pagan Lagrange Multiplier Test

Variable	chi2(2)	Prob>chi2
MV/BV	35.34	0.0000
ROE	1.98	0.1594
ROA	9.53	0.0020
ROS	16.27	0.0001
D/A	103.25	0.0000
TS	20.15	0.0000
NP	19.34	0.0000

When the results on Table 3 is examined, it is seen that the H_0 hypothesis, saying Breusch- Pagan Lagrange Multiplier Test pool model shall be used, is not rejected for Model 2, however it is rejected for Model 1, 3, 4, 5, 6 and 7. Subsequently, Hausman's specification test is performed to compare fixed effect and random effect regressions in estimation of models except Model 2. The results of Hausman Test are shown on Table 3:

Table 3: The Results of Hausman Test

Variable	chi2(2)	Prob>chi2
MV/BV	1.32	0.5167
ROA	0.72	0.6992
ROS	2.82	0.2444
D/A	0.18	0.9122
TS	1.76	0.4139
NP	0.58	0.7496

According to the Hausman test, the null hypothesis is not rejected, and the random effect regression is appropriate for the models (Model 1, 3, 4, 5, 6, 7). To obtain unbiased statistical inference, the estimated random effects models are analyzed in terms of autocorrelation and heteroscedasticity.

Autocorrelation existence in models is tested with Durbin-Watson test. Test results may be seen on Table 4:

Table 4: The Results of Durbin-Watson Test

Variable	Durbin-Watson
MV/BV	1.4575285
ROE	2.0031738
ROA	1.8614105
ROS	2.8259861
D/A	1.5959566
TS	1.9196146
NP	1.8284025

When test results are examined, we can see in models 1, 3, 5, 6 and 7 there is autocorrelation.

Heteroscedasticity problem existence in Model 2 is tested with White test and in Model 1, 3, 4, 5, 6 and 7 is tested with Levene, Brown and Forsythe's tests. Test results can be seen on table 5:

Table 5: The Results of White Test and Levene, Brown and Forsythe's Tests

	Model 2	
chi2=15.22	df=5	P=0.0094
	Model 1, 3, 4, 5, 6, 7	
w_0=4.3118429	df(32,86)	Pr>F=0.00000085
w_{50}=2.8037344	df(32,86)	Pr>F=0.00014134
w_{10}=4.3118429	df(32,86)	Pr>F=0.00000085

According to the result of the Wtihe test, the null hypothesis expressing the constant variance is rejected, consequently there is heteroscedasticity problem in Model 2.

H_0 hypothesis is rejected saying 'variance of units are equal' by comparing Levene, Brown and Forsythe test statisticals (w_0, w_{50}, w_{10}) with Snedecor F table with (32,86) degrees of freedom. As a result, there is heteroscedasticity problem in Model 1, 3, 4, 5, 6 and 7.

To obtain an unbiased statistical estimation, the white estimator is carried out for Model 2 and the panel corrected standard errors (PCSE) method is carried out for Model 1, 3, 4, 5, 6 and 7.

Results can be seen on Table 6:

Table 6: The Results of Regression Analysis

	Dependent Variable: MV/BV					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	5.5793	1.6549	3.37	0.001	0.1578	0.000
Company Size	-0.0147	0.0493	-0.30	0.765		
	Dependent Variable: ROE					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**t**	**p-value**	**R-squared**	**Prob>F**
CSR	1.2035	0.2930	4.11	0.000	0.1948	0.000
Company Size	0.0165	0.0173	0.96	0.340		
	Dependent Variable: ROA					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	0.4100	0.0564	7.26	0.000	0.1506	0.000
Company Size	0.0071	0.0015	4.64	0.000		
	Dependent Variable: ROS					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	0.6652	0.7752	0.86	0.391	0.0226	0.000
Company Size	0.1212	0.1253	9.67	0.000		
	Dependent Variable: D/A					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	0.3690	0.1621	2.28	0.023	0.0472	0.000
Company Size	-0.0274	0.0082	-3.33	0.001		
	Dependent Variable: TS					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	-1.490.000.000	2.520.000.000	-0.59	0.554	0.0821	0.000
Company Size	1.360.000.000	252.000.000	5.41	0.000		
	Dependent Variable: NP					
Independent and Control Variables/Parameters	**Coeff.**	**Std. Err.**	**z**	**p-value**	**R-squared**	**Prob>chi2**
CSR	287.000.000	34.000.000	8.45	0.000	0.2759	0.000
Company Size	27.400.000	5.583.384	4.90	0.000		

According to white estimator and random effects model corrected with panel PCSE, the validity of the regression models is very high (For Model 2 Prob>F=0.000 and for Model 1,3,4,5,6,7 Prob>chi2=0.000). According to analysis, there is a meaningful and positive relationship, at the 5% level, between corporate social responsibility and MV/BV ratio, return on equity ratio, return on assets ratio, leverage ratio and net profit. In other words, as corporate governance level increases, market value and leverage ratio of the institution increases. However, there is no meaningful relation between corporate social responsibility and companies' total sales and return on sales ratio.

4. Conclusion

In this study, the effect of corporate social responsibility level on financial performance of companies listed in BIST Corporate Governance Index between years 2006-2012 is examined and data of the mentioned companies have been analyzed with panel data analysis.

Results show that, there is a statistically meaningful and positive relationship between corporate social responsibility rating score and MV/BV ratio. This result can be interpreted as the price of stocks of companies that attach importance to corporate social responsibility activities increases hence market value also increases. In other words, investors are considering corporate social responsibility level of the companies while giving investment decisions. Contributing to the solution of social problems positively affects companies' corporate reputation and brand value, therefore positive changes in the level of corporate social responsibility of companies adds positive value on their market values.

According to the analysis, there is a meaningful and positive relationship between corporate social responsibility level and return on equity ratio. This result points that return on owner's equity paid to company by shareholders is rising in the companies that attach importance to corporate social responsibility activities. In other words, corporate social responsibility activities positively affect the perspectives' of society and investors; therefore return on equity ratio increases as a result of the corporate social responsibility activities' positive contribution in the profit level, stock prices and market values of companies.

Another fact received as a result of the analysis is; the meaningful and positive relationship between corporate social responsibility level and return on assets ratio. This result can be interpreted as the companies that have a high level of corporate social responsibility have a high activity level in using its assets and as a result the potential for making profit is increasing in that companies.

The result of the analysis also points that there is a meaningful and positive relationship between corporate social responsibility level and leverage ratio. According to this result, it can be said that companies having higher corporate social responsibility level are more reliable for creditors. In other words companies that have awareness and attach importance on corporate social responsibility activities can have more capability of borrowing as a result of reputation by investors' confidence in the institution. However, when leverage ratio is over market averages, the fact that it will increase the financial risk of the institution shall not be disregarded.

When the results are analyzed, it is seen that there is a meaningful and positive relationship between corporate social responsibility level and the net profit of the companies. This result can be interpreted as the companies that have awareness and sensitivity for corporate social responsibility gain significant advantages in creating brand value, reaching in new markets and ensuring customer loyalty, hence the market values of these companies increase and these companies can create a possibility to reach the investors that have sensitivity for corporate social responsibility, the price of stocks of these companies increases, creditors' confidence in these companies lowers borrowing costs and with the effect of all these results, the net profit level of these companies increases.

The other results show that, there is a meaningful and positive relationship, at the 5% level, between the size of the companies and the companies' return on assets ratio, return on sales ratio, total sales and net profit made by companies; and there is a meaningful and negative relationship, at the 5% level, between the size of companies and leverage ratio. Therefore, it can be said that when the size of the company increases, the company behaves more effective using of its assets, has a high level of sales and its net income per unit of sales and its net profit increases. However, if the size of the company increases, the company reduces the amount of foreign resources. This situation may be derived from the increasing potential for making profit and creating companies' own resources, when the size of the company increases.

The lower number of companies included in the analysis and the absence of a corporate social responsibility and sustainability score in Turkey are the limitations of this study. In this context we believe that this study will set light to researches to be made in the future.

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Appendix-1: Company List

Anadolu Efes Biracılık ve Malt Sanayi A.Ş.	Logo Yazılım Sanayi ve Ticaret A.Ş.
Arçelik A.Ş.	Otokar Otobüs Karoseri A.Ş.
Aselsan Elektronik Ticaret A.Ş	Park Elektrik A.Ş.
Aygaz A.Ş.	Petkim Petrokimya Holding A.Ş.
Boyner Büyük Mağazacılık A.Ş.	Pınar Entegre Et ve Un Sanayi A.Ş.
Coca Cola İçecek A.Ş.	Pınar Süt Mamulleri Sanayi A.Ş.
Dentaş Ambalaj ve Kağıt Sanayi A.Ş.	Tav Havalimanları Holding A.Ş.
Doğan Şirketler Grubu Holding A.Ş.	Tofaş Türk Otomobil Fabrikası A.Ş.
Doğan Yayın Holding A.Ş.	Turcas Petrol A.Ş.
Doğuş Otomotiv A.Ş.	Tüpraş Türkiye Petrol Rafinerileri A.Ş.
ENKA İnşaat ve Sanayi A.Ş.	Türk Prysmian Kablo ve Sistemleri A.Ş.
Global Yatırım Holding A.Ş	Türk Telekomünikasyon A.Ş.
Hürriyet Gazete A.Ş.	Türk Traktör ve Ziraat Makineleri A.Ş.
İhlas Ev Aletleri A.Ş.	Vakıf Yatırım Ortaklığı A.Ş.
İhlas Holding A.Ş.	Vestel Elektronik A.Ş.
İş Gayrimenkul Yatırım Ortaklığı A.Ş.	Yazıcılar Holding A.Ş.
İş Yatırım Menkul Değerler A.Ş	