



The Effect of the Characteristics of Board of Directors on Social Responsibility in the Listed Companies on Tehran Stock Exchange

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ABSTRACT

Different studies have investigated the causes and reasons leading organizations to the use of social responsibility. Despite the lack of determinants of social responsibility within the company, studies on intra organizational factors, including the characteristics of board members, to analyze why board members differ in commitment to social responsibility are growing. The purpose of this study is to investigate the effect of board characteristics on social responsibility. For this purpose, information on 91 TSE listed companies in the period 2016-2020 was collected. After performing the required tests, the fixed effects method was found to be suitable for estimating the model, and due to the problem of variance heterogeneity, the GLS method was used to estimate the model. The results show that the gender and independence of the board had a positive and significant effect on corporate social responsibility, but the size of the board had a negative effect on social responsibility.

KEYWORDS: Social responsibility; Gender of board members; Board independence and size

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1. Introduction

This study examines the effect of board characteristics on disclosure of corporate social responsibility (CSR). Business enterprises can influence the community with their activities. For this reason, companies pursue social responsibility strategies and issues concerning social responsibility. Social responsibility helps balancing the social and economic goals for efficient use of limited resources. Companies should not only disclose their social and environmental activities, but also should in the best possible way inform stakeholders regarding their social and environmental performance. This is because stakeholders are critical to business success and are now increasingly concerned about the social and environmental performance of companies. CSR has been an important and attractive field of study in the world and its concepts have been explored in a variety of ways (Kim et al., 2019).

On the other hand, the issue of board size, selection of its members and the gender diversity of the board are of importance to companies for determining the board composition. The board composition and characteristics of the board of directors can have a significant impact on the growth and development of any company. The effect of board composition and gender diversity on corporate social responsibility has been a major topic in organizational research. Different characteristics of the board as one of the effective factors in maintaining the value of the company and respect for the rights of stakeholders have been investigated in various studies (Ulla et al., 2019)

In recent years with more attention to the capital market development, the attention to the role of social responsibility has become more colorful. Social responsibility is a set of obligations that companies must fulfill in line with their social and environmental role. On the other hand, in addition to disclosing important information, social responsibility has promoted the category of reporting where disclosed social information has been considered by stakeholders as an important symbol in the three dimensions of social responsibility. Recent studies have examined the role of the characteristics of the board and its members in relation to social responsibility. According to researchers, company managers have a significant impact on important and strategic decisions of companies and can affect the implementation or non-implementation of social responsibility (Olthuis et al., 2020).

Management engagement in the category of social responsibility disclosure signifies their commitment to implementation of transparency and increased accountability vis-a-vis stakeholders, just as managers have many incentives to establish ethical and behavioral standards in companies. In fact, fulfilling social responsibility can reduce the conflict of interests between the company and people in society, and thus reduce the risk of companies and increase the value of companies, and managers will profit from the implementation of social responsibility (Huang and Sun, 2017).

In presence of effectively binding laws and regulations in the field of social responsibility, companies will be less exposed to lawsuits from stakeholders who claim that the poor quality and inadequacy of CSR reporting has caused them losses and damages. In the meantime, according to the agency theory, managers pay more attention to social and environmental issues than shareholders. Therefore, environmental disclosure can be a function of managerial decisions and perspectives. In this regard, management optimism can be a determinant of how companies fulfill their social responsibility. Optimistic managers underestimate company's future and potential risks. Therefore, this group of managers take less hedging measures and risk coverage compared to conservative managers (McCarthy et al., 2014).

2. Theoretical Background

The concept social responsibility has covered a considerable body of literature. McWilliams and Siegel (2001) argue that social responsibility is a set of actions that seem to be taken to advance certain social issues beyond the interests of the company and what is required by law. Hence, social responsibility considers the tendency of various organizational practices to serve stakeholders, such as employees and the community (García-Sánchez et al., 2013).

Various studies have examined the reasons leading organizations to the use of social responsibility. Despite the lack of determinants of social responsibility within the company, studies on

intraorganizational factors, including the characteristics of board members, analyzing why board members differ in their commitment to social responsibility are growing (Gupta et al., 2017).

It is possible that the decisions and actions of managers, given their characteristics, affect the corporate social responsibility and the commitment to implement it. Managers are usually focused on achieving their short-term goals following their decision making, but realization of social responsibility and its eventual benefits is a matter of long-term planning and effort. Therefore, some managers may not be concerned with CSR implementation and disclosure. The board size and composition of its members can have a significant impact on this category. Companies with higher management stability pay more attention to the long-term effects and benefits of social responsibility. One of the characteristics of the board that can have important effects on social responsibility is the independence of the board. Independent board members are effective in gaining corporate legitimacy, improving the public opinion of business organizations and requiring companies to report social and economic information and disclose environmental information. Another feature of the board is its gender diversity, which can affect social responsibility. According to studies, women have a significant contribution to economic and social progress, and their presence on the board will lead to greater diversity of moral, social and economic approaches (Olthuis et al., 2020).

Yaram and Adapa (2021) examined the gender diversity in the board of directors and corporate social responsibility and showed that companies that have improved gender balance perform higher in positive social responsibility activities and reduce engagement in negative or controversial activities which hinder social responsibility. Mamoun et al (2021) examined the characteristics of board of directors and SR participation of companies in emerging economies and concluded that there is a positive statistical relationship between engagement in SR and several characteristics of directors including political influence, international experience, business specialization, other managerial positions, and independence from directorship. Olthuis et al. (2020) examined how diversity in the board affects social responsibility. Their results support a negative relationship between board ideological diversity and SR performance, indicating that a high level of ideological diversity leads to lower performance in social responsibility. Wang et al. (2020) examined gender attitudes and the impact of board gender composition on corporate environmental social responsibility and concluded that the board gender diversity increases the influence of the managerial board on corporate environmental social responsibility, while social prevalence of gender discrimination undermines the position, of women in corporate governance.

3. Research Methodology

This study, in terms of method, is a post-event, causal research. In this research, panel data are used to test the hypotheses. Three hypotheses are developed in line with the objectives of this study that examine the possible impact of board size, independence and gender composition on CSR. In the panel data method, time series data (understudy years) and cross-sectional data (understudy companies) are combined. Combined data are mostly used to raise the number of observations and the degree of freedom, and reduce variance heterogeneity, and facilitate dynamic study of changes. In order to efficiently estimate a regression model using panel data, it is made a choice between joint effects, fixed effects and random effects models, performing the right tests. The F-Limer test is used to choose between joint effects and fixed effects models. If the fixed effects model is selected, Hausman test is used to choose between fixed effects and random effects models. Also, autocorrelation will be examined except for model disruption and variance heterogeneity. The coefficient of determination will be used to explain the explanatory power of variables and Fisher's statistic will be used to evaluate the overall adequacy of the model. Statistical analysis is also performed in Excel and EViews software. The statistical population in this study includes the listed companies on the Tehran Stock Exchange (TSE). Sampling is conducted using systematic elimination method, given the following constraints:

1. In terms of increasing comparability, their financial period should end in March.
2. The company has been listed on the Tehran Stock Exchange before 2016.
3. The required information on these companies is available.

4. Companies should not be part of banks and financial institutions (investment companies, financial intermediaries, holding companies and leasing companies), because their financial disclosures and structures are different.

5. The company has not changed the fiscal year or changed the activity during the understudy period.

6. Companies do not have a trading interval of more than 3 months.

Given the maintained constraints imposed, 91 companies were selected for a review.

The following model is made to test the research hypotheses:

$$CSR_{it} = \beta_0 + \beta_1 BG_{it} + \beta_2 BI_{it} + \beta_3 BS_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \epsilon_{it}$$

In the above model:

1. CSR: Corporate Social Responsibility
2. BG: Board Gender
3. BI: Board Independence
4. BS: Board size
5. SIZE: Company size
6. LEV: Financial leverage

Corporate social responsibility has three dimensions: social, economic and environmental. Each of these dimensions has a different set of components. The dimensions and the subset components are borrowed from Barzegar (2013) as presented in the following checklist.

Table 1. Checklist of dimensions and respective components

Dimension	Components	Symbol
Economic	Economic performance	EC1
	Presence in market and region	EC2
	Indirect economic effects	EC3
	Responsible investment	EC4
	Taxes	EC5
Social	Work and employees / employment and work procedures	SO1
	Human rights	SO2
	Supply chain, customers and consumers of products/services	SO3
	Community participation and development	SO4
	Business ethics / fair operation procedures	SO5
	Corruption, bribery and money laundering	SO6
	Observance of laws and regulations related to social dimension	SO7
Environmental	Raw materials and energy	EN1
	Diversity of bio-species and natural resources	EN2

	Gas emission, sewages and waste (refuse)	EN3
	Products and services and their environmental effects	EN4
	Observance of laws and regulations related to environmental dimension	EN5

The percentage of social responsibility of each company is calculated based on the checklist by the following formula: CSR score = number of disclosed items / total number of items to disclose

The board gender distribution is obtained by dividing the number of the board female members by the total number of the board members. The independence of the board is obtained from dividing the board non-executive members by all the board members. The board size includes all the active and non-executive members of the board. The company size is obtained from the natural logarithm of its total assets and the financial leverage is obtained from dividing the total debts by the total assets (Olthuis et al., 2020).

4. Findings

The descriptive statistics of the variables is presented in the table below:

Table 2: descriptive stats

	CSR	BG	BI	BS	SIZE	LEV
Mean	0.388440	0.024202	0.655165	5.019780	14.09921	0.629466
Median	0.350000	0.000000	0.600000	5.000000	12.97921	0.608031
Maximum	0.700000	0.333333	0.800000	7.000000	18.73931	2.077506
Minimum	0.170000	0.000000	0.000000	3.000000	10.35211	0.012733
Std. Dev.	0.124274	0.065285	0.218240	0.560880	1.262393	0.230183
Skewness	0.358456	2.395216	-0.846600	-0.218435	0.692676	1.093494
Kurtosis	2.183568	7.037906	4.128251	11.51095	4.972821	8.814717
Jarque-Bera	22.38076	744.1700	78.48516	1376.888	110.1711	731.6752
Probability	0.000014	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	176.7400	11.01190	298.1000	2284.000	6415.143	286.4071
Sum Sq. Dev.	7.011592	1.934992	21.62353	142.8220	723.5110	24.05473
Observations	455	455	455	455	455	455

For example, the average social responsibility variable is 0.388440, the average board independence variable is 0.600000 and the maximum number of board members (board size) is 7 people. Next, we must make sure of the variable stationarity (no unit root) in order not to get a false regression. According to the table of stationarity, all variables in this study are at the stationary level (with no unit root).

Table 3: Unit Root Test

Coefficient	Statistic	Prob
BG	13.30	0.0000
CSR	13.53	0.0000
LEV	15.14	0.0000
SIZE	12.12	0.0000
BI	15.48	0.0000
BS	13.55	0.0000

Before estimating the model using panel data, it is necessary to decide on the right method of using such data in estimation. Based on the results of this test, it is decided to reject or accept the hypothesis of equality of firm-specific fixed effects and finally to choose the classical method or panel data method.

Table 4: Cross-section fixed effects test equation

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.287541	(90,359)	0.0000
Cross-section Chi-square	430.584781	90	0.0000

According to the obtained results, the panel data method should be used. As a result, we have to make a choice between fixed and random effect models, for which the Hausman test is used.

Table 5: Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	26.02602	5	0.0037

Having chosen the fixed effects method, the variance heterogeneity test is performed in order to find the correct method for estimating the model.

Table 6: Heteroskedasticity Test: Harvey

F-statistic	9.441270	Prob. F(5,85)	0.0000
Obs*R-squared	32.49298	Prob. Chi-Square(5)	0.0000
Scaled explained SS	57.66114	Prob. Chi-Square(5)	0.0000

According to the obtained results in the research model, the assumption on the homogeneity of the variance of the error terms is rejected and the model will be estimated by the GLS method, the results of which are presented as follows.

Table 7: Panel EGLS (Cross-section weights), Dependent Variable: CSR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BG	0.092537	0.034282	2.699257	0.0073
BI	0.007483	0.002392	3.128186	0.0019
BS	-0.015125	0.005304	-2.851570	0.0046
LEV	-0.007844	0.016246	-0.482841	0.6295
SIZE	-0.015202	0.011582	-1.312584	0.1902
C	0.587004	0.040754	14.40352	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.886224	Mean dependent var		0.608324
Adjusted R-squared	0.856116	S.D. dependent var		0.445048
S.E. of regression	0.085340	Sum squared resid		2.614574
F-statistic	29.43485	Durbin-Watson stat		1.902797
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.620564	Mean dependent var		0.388440
Sum squared resid	2.660452	Durbin-Watson stat		1.807184

Table 8: Variance Inflation Factors

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
BG	0.024992	1.215538	1.057426
BI	0.002245	12.07657	1.211832
BS	0.000351	94.63664	1.134585
LEV	0.001338	7.661616	1.137792
SIZE	4.67E-05	98.09946	1.175955
C	0.018529	191.3412	NA

According to the probability of calculated F-statistic (0.0000), it can be claimed that the fitted regression model is significant. According to the coefficient of determination of the fitted model, it can be claimed that about 88% of the changes in the dependent variable of the model (social responsibility) are explained by independent variables. Considering the value of the Durbin-Watson statistic which is 1.90, it can be concluded that the model does not have the problem of autocorrelation in the error terms. The results in table 8 also show that the model does not have the collinearity problem. The results of the model estimation show that the statistical relationships assumed in the research hypotheses are confirmed and the board gender and independence have a positive effect on CSR and the board size has a negative effect on CSR.

5. Discussion And Conclusion

Examination of the first hypothesis test showed that the board size had a significant effect on social responsibility. The results show that board size has an impact on social responsibility. Companies that have more members on their board of directors have a lower level of corporate responsibility. The presence of more people on the board of directors of companies can reduce compliance with social responsibility and reduce the level of disclosure of social responsibility. More members will lead to more differences of taste, and it is possible that some members will seek personal gains and make selfish decisions, thereby undermining corporate social responsibility. In this regard, it is suggested that shareholders and investors who intend to enter the capital market and invest in the shares of companies pay more attention to the board size, because with the increase in the number of board members, the obligation to observe social responsibility is weakened. The stock exchange organization is also suggested to specify a specific mechanism for the number and composition of board members of companies. Examination of the second hypothesis showed that the board gender had a positive and significant effect on social responsibility. With an increase in participation and presence of women and their number in the board of directors of various companies, CSR has risen as well. In fact, this result confirms this and supports previous studies that women are more concerned with performing the role and commitment of any company in the field of social responsibility and more seriously pursuing the fulfillment of obligations and meeting the requirements of social responsibility. To. Investors are advised to pay special attention to the board gender diversity and the percentage of women on the board of directors, because companies use different methods to eliminate the deficit of financial resources in each of the stages of growth, maturity and decline. And investors should invest in each of the stages according to the purpose of their investment and the use of these methods. The test of the third hypothesis showed that board independence had a positive and significant effect on social responsibility. In presence of independent members on the board who do not have a physical presence in the company and are not in an executive position in the company, the CSR performance is improved and independent members raise the level of engagement in CSR by considering the collective interest and the commitment to play their role in this respect. The role of the board independence and the presence of independent members in it can be colorful at the level of CSR disclosure. Considering the position of CSR in organizations, the Accounting Standards Committee formulated a standard in this regard that should be used by all companies, and investors should pay more attention to the number of independent members on the board and composition of its executive and non-executive members.

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ETHICAL CONSIDERATION

Authenticity of the texts, honesty and fidelity has been observed.

CONFLICT OF INTEREST

Author/s confirmed no conflict of interest.