Corporate Governance Attributes and Financial Reporting Quality: Empirical Evidence from Iran

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Abstract
The aim of this study is to investigate the effect of corporate governance attributes on financial reporting quality in firms listed in Tehran Stock Exchange (TSE) during the period of 2003 to 2011. In this study McNichols (2002) and Collins and Kothari (1989) are used for financial reporting quality measurement purpose, and institutional ownership, ownership concentration, board independence and board size is considered as corporate governance attributes. The results of the study show that there is no relationship between corporate governance attributes including board size, board independence, ownership concentration, institutional ownership and financial reporting quality. In addition, no evidence is found to support significant relationship between control variables (audit size, firm size and firm age) and financial reporting quality.

Keywords: Corporate governance attributes, financial reporting quality

Introduction
Financial reporting quality is a major concern for all current and potential investors. According to Biddle et al. (2009) financial reporting quality is defined as the precision with which financial reporting conveys information about the firm’s operations, in particular its expected cash flows that inform equity investors. Their definition is consistent with the Financial Accounting Standards Board Statement of Financial Accounting Concepts No. 1 (1978), which states that one objective of financial reporting is to inform present and potential investors in making rational investment decisions and in assessing the expected firm cash flows. Corporate scandals of the last decade and collapse of big firms in recent years raised concerns about financial reporting quality which led to the passage of Sarbanes–Oxley which had a focus on the financial aspects of corporate governance. Requiring independent directors, more autonomy of the audit committee and the appearance of more accountability by the chief executive officer (CEO) and the chief financial officer (CFO) were all elements of this corporate governance focus (Cong and Freedman, 2011). DeFond and Lennox (2011) find that the passage of SOX results in a large reduction in the number of small audit firms operating in the market.

They report that nearly 50%, 607 of 1,233 small audit firms that were active during 2001–2008 exited the market and the majority of these exits occur in 2002–2004, coinciding with passage of SOX, the advent of PCAOB registrations, and the beginning of inspections. The presence of fewer small auditors coincides with a doubling of the average number of clients per small audit firm.
Low quality auditors are more likely to be cost beneficial, at the margin, to exit the market for public company audits in response to the new regulatory environment implemented under SOX (P.22). These results show that the passage of these Acts increased audit quality if audit size supposed to be proxy for audit quality. Moreover, it is expected that high audit quality lead to high financial reporting quality. Therefore, the passage of Acts led to increase financial reporting quality. However, good governance practices (including auditing) are value enhancing. A firm with a set of effective governance controls that lowers the conflict of interests between minority shareholders and insiders tends to increase its firm value by reducing information asymmetry and increasing management efficiency (Lee et al., 2011). Researchers often view corporate governance mechanisms as falling into one of two groups: those internal to firms and those external to firms (Gillan, 2006:382).

Litfig. 1. Corporate governance and the balance sheet model of the firm. Adapted from PowerPoint slides accompanying Ross et al. (2005).

eature review

Chen et al. (2006) examined whether ownership structure and boardroom characteristics have an effect on corporate financial fraud in China. Their results from univariate analyses show that ownership and board characteristics are important in explaining fraud. However, using a bivariate probit model with partial observability they demonstrate that boardroom characteristics are important, while the type of owner is less relevant. In particular, the proportion of outside directors, the number of board meetings, and the tenure of the chairman are associated with the incidence of fraud.

Jiang et al. (2008) studied the association between corporate governance and earnings quality. Their results suggest that only firms in the highest category of corporate governance experience significantly improved quality of earnings. They document that corporate governance is negatively associated with small earnings surprises. Their findings imply that firms with weak corporate governance are more likely to manage earnings in order to meet or beat analyst forecasts.

Connelly et al. (2012) investigated effect of ownership structure and corporate governance on firm value in Thailand. They find that Tobin’s q values are lower for firms that exhibit deviations between cash flow rights and voting rights. They also find that the value benefits of complying with “good” corporate governance practices are nullified in the presence of pyramidal ownership structures, raising doubts on the effectiveness of governance measures when ownership structures are not transparent. Finally, they assert family control of firms through pyramidal ownership structures can allow firms to seemingly comply with preferred governance practices but also use the control to their advantage.
Dimitropoulosb and Asterioua (2010) investigated the effect of board composition on the informativeness and quality of annual earnings. Their data analysis over a period of five years (2000–2004) revealed that the informativeness of annual accounting earnings is positively related to the fraction of outside directors serving on the board, but it is not related to board size. Additionally, firms with a higher proportion of outside board members proved to be more conservative when reporting bad news but on the contrary they do not display greater timeliness on the recognition of good news. They further indicate that firms with a higher proportion of outside directors report earnings of higher quality compared to firms with a low proportion of outside directors.

Cornett et al. (2009) examined whether corporate governance mechanisms affect earnings and earnings management at the largest publicly traded bank holding companies in the United States. They find that CEO pay-for-performance sensitivity (PPS), board independence, and capital are positively related to earnings and that earnings, board independence, and capital are negatively related to earnings management. They also find that PPS is positively related to earnings management. Finally, they assert that PPS and board independence are positively related and the relationship is bidirectional. While both PPS and board independence are associated with higher earnings, their results indicate that more independent boards appear to constrain the earnings management that greater PPS compels.

Firth et al. (2002) find evidence of strong linkage and interdependence in the use of different control mechanisms. While there are significant relationships between the governance control mechanisms and firm performance, these disappear when using simultaneous equation estimation. Their findings support the argument that governance control mechanisms operate independently and they are substitutes for one another.

Vafeas (2000) investigated the relationship between board structure and the informativeness of earnings. Their results suggest that earnings of firms with the smallest boards in the sample (with a minimum of five board members) are perceived as being more informative by market participants. By contrast, there is no evidence that board composition mitigates the earnings returns relation.

Braga-Alves and Morey (2012) in a research titled predicting corporate governance in emerging markets find two main results. First, as firms grow they are more likely to improve their governance. Second, the level of political risk where the firm resides is negatively and significantly related to the level of firm governance but positively and significantly related to changes in firm governance. They conclude that firm governance is better in countries with lower political risk but firms are more likely to improve their governance in countries with higher political risk.

**Methodology**

Considering that the present study uses historical data, it is post facto research in which researcher has no control on collected data in these sorts of study. In addition, because the relationship between corporate governance attributes and financial reporting quality is investigated in TSE, the research is descriptive-correlation study using documental method to collect data. Research data are drawn from financial statements and notes of firms listed in TSE. After collecting necessary data, research hypotheses are tested using multiple regression in SPSS and EViwes softwares.

**Population and sampling**

The population of this study consists of firms listed in TSE. However, due to high volume of population and some heterogeneity among firms listed in TSE, following conditions are considered:

1. Firm’s fiscal year must be ended at the end of year and they have not changed their fiscal year during studied period.
2. Firms must not be brokerage or investment firm.

As a result of this condition, a sample of 136 firms is selected to be studied during 2003 to 2011.

**Research hypotheses**

Main hypothesis: there is a significant relationship between corporate governance attributes and financial reporting quality.
Sub-hypotheses:

Sub-hypothesis 1: there is a significant relationship between board size and financial reporting quality.
Sub-hypothesis 2: there is a significant relationship between board independence and financial reporting quality.
Sub-hypothesis 3: there is a significant relationship between institutional ownership and financial reporting quality.
Sub-hypothesis 4: there is a significant relationship between ownership concentration and financial reporting quality.

Variables definition

Research independent variables include board size, board independence, institutional ownership and ownership concentration; and dependent variable is financial reporting quality. Following multiple regression is used to test the hypotheses:

\[ Q_{fi} = \alpha_1 + \beta_1 BRDIND_{it} + \beta_2 BRDSZE_{it} + \beta_3 NSTOWN_{it} + \beta_4 OWNCON_{it} + \beta_5 \sum \text{CONTROLS}_{it} + \varepsilon_{it} \]

Where:

Board size (BRDSZE): number of board members of firm i in year t.
Board independence (BRDIND): number of board outsider members of firm i in year t divided by total number of board members of firm i in year t.
Institutional ownership (NSTOWN): total shares of firm i in year t belonged to banks, insurances, financial institutions, holding companies and governmental institutions.
Ownership concentration (OWNCON): total percentage of shareholders having a minimum 5 percent of firm i in year t.
Control variables (CONTROLS):
Firms size: natural logarithm of firm i in year t.
Firm’s age: distance between the time of firm establishment to studied period.
Audit size: if a firm is audited by Iranian audit organization, it takes 1, otherwise 0.
\( \varepsilon_{it} \): error term

Models of financial reporting quality measurement

Financial reporting quality is measured by residual standard deviation of two models of McNichols (2002) and Collins and Kothari (1989).

McNichols (2002) model

\[ \frac{ACCR_{it}}{TA_{it-1}} = \frac{\alpha_0}{TA_{it-1}} + \frac{\alpha_1 CF_{it-1}}{TA_{it-1}} + \frac{\alpha_2 CF_{it}}{TA_{it-1}} + \frac{\alpha_3 CF_{it+1}}{TA_{it-1}} + \frac{\alpha_4 REV_{it}}{TA_{it-1}} + \frac{\alpha_5 PPE_{it}}{TA_{it-1}} + \varepsilon_{it} \]

Where all scripts of time and firm are omitted:
ACCR: total current accruals
CF: current cash flow
CFit-1: lagged cash flow
CFit+1: future cash flow
AREV: changes in revenue
PPE: property, plant and equipment
All variable deflated by lagged total assets (TAit-1)

Collins and Kothari (1989) model

\[ RET_{it} = \alpha_0 + \alpha_1 EARN_{it} + \alpha_2 \Delta EARN_{it} + \alpha_3 NEG_{it} + \alpha_4 EARN_{it} \times NEG_{it} + \varepsilon_{it} \]
Where all scripts of time and firm are omitted:
RET: annual return of stock
EARN: net earnings per share
ΔEARN: changes in earnings per share
NEG: dummy variable, takes 1 if firms is loss-maker otherwise 0.
EARN*NEG: interaction between return and dummy variable

Empirical results
Descriptive statistic and correlation between variables
Descriptive statistic and descriptive statistic of research variables is shown in Table 1 and 2, respectively.

Table 1. Descriptive statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic</th>
<th>observation</th>
<th>mean</th>
<th>median</th>
<th>max</th>
<th>min</th>
<th>Standard deviation</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board size</td>
<td></td>
<td>1088</td>
<td>5.0477</td>
<td>5.0000</td>
<td>7.0000</td>
<td>3.0000</td>
<td>0.3949</td>
<td>0.0782</td>
</tr>
<tr>
<td>Board independence</td>
<td></td>
<td>1088</td>
<td>0.6431</td>
<td>0.6000</td>
<td>2.0000</td>
<td>0.0000</td>
<td>0.1860</td>
<td>0.2893</td>
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<tr>
<td>Institutional ownership</td>
<td></td>
<td>1088</td>
<td>0.5622</td>
<td>0.6777</td>
<td>0.9999</td>
<td>0.0000</td>
<td>0.3292</td>
<td>0.5855</td>
</tr>
<tr>
<td>Ownership concentration</td>
<td></td>
<td>1088</td>
<td>0.7144</td>
<td>0.7588</td>
<td>0.9966</td>
<td>0.0000</td>
<td>0.2161</td>
<td>0.3025</td>
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<tr>
<td>Firms age</td>
<td></td>
<td>1088</td>
<td>34.320</td>
<td>36.000</td>
<td>59.000</td>
<td>5.0000</td>
<td>10.666</td>
<td>0.3107</td>
</tr>
<tr>
<td>Audit firms size</td>
<td></td>
<td>1088</td>
<td>0.2876</td>
<td>0.0000</td>
<td>1.0000</td>
<td>0.0000</td>
<td>0.4528</td>
<td>1.5745</td>
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<tr>
<td>Firms size</td>
<td></td>
<td>1088</td>
<td>5.5600</td>
<td>5.4819</td>
<td>7.8657</td>
<td>3.6428</td>
<td>0.5886</td>
<td>0.1058</td>
</tr>
<tr>
<td>McNichols (2002)</td>
<td></td>
<td>1088</td>
<td>-6.4908</td>
<td>-0.2581</td>
<td>13.305</td>
<td>-10.5308</td>
<td>2.7605</td>
<td>-0.4253</td>
</tr>
<tr>
<td>Collins and Kothari (1989)</td>
<td></td>
<td>1088</td>
<td>9.220509</td>
<td>-0.4435</td>
<td>20.047</td>
<td>-12.5266</td>
<td>2.8846</td>
<td>0.31285</td>
</tr>
</tbody>
</table>

Table 2. Matrix correlation between research variables

<table>
<thead>
<tr>
<th></th>
<th>BRDSZE</th>
<th>BRDIND</th>
<th>NSTOWN</th>
<th>AGE</th>
<th>AUDIT</th>
<th>DECHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDSZE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRDIND</td>
<td></td>
<td>.017</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSTOWN</td>
<td></td>
<td></td>
<td>.088**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td>-.056*</td>
<td>-.039</td>
<td>.076**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUDIT</td>
<td></td>
<td>.013</td>
<td>.063*</td>
<td>-.214**</td>
<td>.058*</td>
<td>.004</td>
</tr>
<tr>
<td>DECHO</td>
<td></td>
<td>.062*</td>
<td>.031</td>
<td>.053</td>
<td>-.161**</td>
<td>.004</td>
</tr>
</tbody>
</table>

** Significant in 99 percent and * significant in 95 percent

Descriptive statistics only show comprehensive view of variables and it is not for data analyses. According to Table 2, the correlation between institutional ownership and audit firms size is the most between variables. The correlations less than 50 percent in all variables show that there is not collinearly problem.

To test our hypotheses, firstly, fitting methodology of model is determined. To do so F-limer test is conducted for choosing between panel data or pooled data method. Then, Hasman test is use in order to choose between fixed effects and random effects. Results of F-limer test (untabled) indicated that McNichols (2002) model’s data is panel and Collins and Kothari (1989) model’s data is pooled. So, because McNichols (2002) model’s data is panel, in next step Hasman test is used for selecting between fixed effects method and random effects method. Finally, our multiple regression model is regressed which is shown in Table 1 as below.
Table 3. Summary results of hypotheses test

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>t-statistic</td>
</tr>
<tr>
<td>Constant</td>
<td>0.5408994</td>
<td>0.579012</td>
</tr>
<tr>
<td>BRDSZE</td>
<td>-0.050900</td>
<td>-0.456663</td>
</tr>
<tr>
<td>BRDISD</td>
<td>-0.304687</td>
<td>-1.123219</td>
</tr>
<tr>
<td>NSTOWN</td>
<td>-0.020517</td>
<td>1.093911</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-0.148501</td>
<td>-0.479725</td>
</tr>
<tr>
<td>Firms size</td>
<td>0.000924</td>
<td>0.055885</td>
</tr>
<tr>
<td>Firm’s age</td>
<td>0.160784</td>
<td>1.082121</td>
</tr>
<tr>
<td>Audit firms size</td>
<td>-0.008698</td>
<td>0.054992</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.144780</td>
<td>0.246000</td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>2.405008</td>
<td>2.702645</td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Considering F-statistic for McNichols (2002) and Collins and Kothari (1989) model (0.000 and 0.000, respectively), significance of these models is accepted. However, to decide whether as to accept or reject the research hypotheses, t-statistic is considered individually. As it is shown in the Table considering significance of t-statistic for the models, all our hypotheses is rejected including control variables. To put these results in scrutiny, we regressed hypothesis variables individually with the control variables. The results of individual regressions (untabled) also proved multiple regression results. With regard to first and second hypotheses, these results is inconsistent with the results of Fama and Jensen (1983), Farber (2005), Ditropoulos and Asteriou (2010) and Beasley (1996) but is according to the results of Petra (2007), Bradbury et al. (2006), Ahmed and Duellman (2006), Hermalin and Weisbach (1998), Klein (1998) and Vafeas (2000). As to institutional ownership, the result is inconsistent with the result of Shama (2006). In addition, Regarding to ownership concentration, the results is not according to the results of Wallace et al. (1994), Hossain et al. (1994), Shleifer and Vishny (1997) and Bozec and Bozec (2007). Contrary results shown in above are not surprising while Doidge et al. (2007) show that “Corporate governance varies widely across countries and across firms. In countries with weak development, it is costly to improve investor protection because the institutional infrastructure is lacking and good governance has political costs. Further, in such countries, the benefit from improving governance is smaller because capital markets lack depth. Finally, such countries have poor investor protection and we find some evidence that there is complementarity between country-level investor protection and firm-level governance. However, financial globalization reduces the importance of country characteristics, thereby increasing the incentives for good governance”.

**Conclusion**

In this study the effect of corporate governance attributes on financial reporting quality in firms listed in Tehran Stock Exchange (TSE) is investigated during the period of 2003 to 2011. In this study McNichols (2002) and Collins and Kothari (1989) are used for financial reporting quality measurement purpose, and institutional ownership, ownership concentration, board independence and board size are considered as corporate governance attributes. The results of the study show that there is no relationship between corporate governance attributes including board size, board independence, ownership concentration, institutional ownership and financial reporting quality. In addition, no evidence is found to support significant relationship between control variables (audit firms size, firm size and firm age) and financial reporting quality.
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