The Impact of Corporate Governance on Market Capitalization: Evidence from Listed Firms of DSE

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ABSTRACT

This study examines the relationship between the corporate governance (CG) mechanisms related to board size (BS), board independence (BI), board committees (BC), ownership structure (OS), and the market capitalization of companies listed in the Dhaka stock exchange (DSE). Secondary data from 41 listed firms in Dhaka Stock Exchange during the period of 2015 to 2022 is utilized in this study. The ordinary least square, regression techniques were applied on the panel data collated to estimate the model. The findings reveal a significant positive impact of board committees and board independence on the market capitalization of the companies, while ownership structure shows a significant negative effect on the market capitalization of the companies. This finding supports the hypothesis that corporate governance adds value to companies and that investments in effective governance systems have a net positive benefit and should be pursued.
INTRODUCTION

Many well-known multinational corporations have been implicated in high-profile financial scandals, including Enron, Anderson, WorldCom, Xerox, Parmalat, Merril Lynch, Maxwell, Allied Irish Bank, and Sellafield (Alimehmeti & Paletta, 2014; Cretu, 2012). These scandals had significant consequences, such as a sharp decline in stock markets, job losses for employees, financial losses for capital providers, and a decrease in tax revenue. A major contributing factor to these failures was the presence of inadequate internal controls, which can be traced back to poor corporate governance practices within organizations (Darus & Mohamed, 2011). In recent years, there has been a growing interest in corporate governance by regulatory authorities and business entities in Bangladesh. This is primarily due to the significant growth and development of the country’s capital market. The Bangladesh Security and Exchange Commission (BSEC) has played a crucial role in bringing about significant changes in the field of corporate governance in Bangladesh. As a result, in 2012, the legislators of Bangladesh introduced corporate governance regulations that serve as the guiding principles for all companies listed on the Dhaka Stock Exchange (DSE). Effective corporate governance typically enables companies to prudently utilize their resources and prevent manipulation, distortions, or deceit that could result in information asymmetry. The main objective of corporate governance is to achieve long-term value for shareholders. Firms that adopt optimal practices in corporate governance may experience superior financial performance and market value (Al-Matari, Al-Swidi, & Fadzil, 2014; Anum Mohd Ghazali, 2010; Meesiri, 2014).

A robust corporate governance system is considered a crucial tool for mitigating conflicts of interest between stakeholders and management (Pandya, 2011). Scholars assert that corporate governance is widely acknowledged as a vital component for ensuring stability in financial markets and promoting economic development (Bonna, 2011; Mangunyi, 2011). The impact of corporate governance mechanisms on corporate performance and market value of companies has garnered significant attention in the stock market economy (Adiloglu & Vuran, 2012). Scholars in management have examined the link between corporate governance, firm performance, and market value. However, the findings are inconclusive and lack consensus (Mangunyi, 2011). Whether corporate governance enhances company performance and market value remains a question with no clear answer, as researchers have not reached a consensus (Ergin, 2012).

LITERATURE REVIEW

The body of literature pertaining to Corporate Governance is extensive and continuously expanding. For instance, Belloc (2012) delved into the topics of corporate ownership, corporate finance, and labor, highlighting their role as three primary mechanisms that constitute a corporate governance system and influence a company’s level of innovation. Chen et al. (2010) conducted an investigation into the influence of corporate governance on a company’s value, and discovered that the need for external financing incentivized companies to enhance the quality of their governance systems. The study also revealed a
substantial impact of corporate governance on a company's value, as high-quality corporate governance systems served as a signal to investors that the company was facing fewer challenges related to information asymmetry and conflicting interests between management and shareholders. This, in turn, led to an increase in shareholders' wealth and the overall value of the company.

From an alternative perspective, Cormier et al. (2010) conducted a study that examines the relationship between corporate governance and information asymmetry between managers and investors. The study utilized an experiment involving a sample of 131 companies, which represented 80% of non-financial companies and 44% of the total companies listed in the Toronto Stock Exchange. The findings indicate that corporate governance mechanisms contribute to a decrease in the level of information asymmetry between internal and external parties. This improvement in quality has a positive impact on the company's market value.

Similarly, Hearn (2011) investigates the impact of corporate governance on the market value of companies with the use of a sample comprised of 37 local companies from West Africa. The study establishes a positive correlation between the board size o and firm value. Additionally, the study reveals a positive relationship between the size of the Board of Directors and the decrease in price, as well as an inverse relationship between the retention of the company's founder as the chief executive and the value of the company. Furthermore, Jung and Zhang (2011) examine the effect of ownership structure and corporate governance on the value of listed companies in the Chinese stock market from 2004 to 2007. The study concludes that the ownership structure has an impact on the value of the company.

Soltani and Ravanmehr (2011) conducted an examination to assess the correlation between corporate governance and monetary savings, as well as ownership structure and the value of the company. The findings of the study revealed a significant impact on firm value due to the independence of the Board of Directors and the reliance on debt, which underlines the notion that companies with a greater number of external directors exhibit superior management and internal control. In contrast, Abbasi et al. (2012) examined the relationship between corporate governance and the value of the company using a sample of listed companies in the Iranian stock market from 2002 to 2011. The study concluded that there is a significant positive correlation between the dual role of the Executive Director, the independence of the Board of Directors, and the value of the company.

Dharmapala and Khanna (2012) undertook a study with the purpose of investigating the influence of corporate governance on the valuation of companies that are listed in the Indian stock market during the period from 1998 to 2006. The findings of the study unveiled a significant and positive association between the implementation of corporate governance reforms and the value of the company. In a similar vein, Li et al. (2012) explored the connection between stock liquidity, corporate governance, and the value of companies that are listed in the Russian stock market spanning from 2002 to 2009. The study highlighted a noteworthy and positive correlation between the
quality of corporate governance and the firm value. Sayilir, (2012) along with Garcia-Meca & Juan Pedro (2011) examined the association between corporate governance and company value for Turkish and Spanish firms, respectively, using a regression model. However, the authors failed to find a significant relationship between corporate governance and company value.

In Bangladesh, Rounok et al. (2018) conducted a study on the implementation of corporate governance in the banking sector from 2010 to 2014. Their findings discovered a negative association between board size, institutional ownership, and debt financing with net profit. Conversely, the executive committee, the audit committee, independent directors, and total assets demonstrated a positive relationship with the increase in net profit. Similarly, another study conducted by Kutubi (2011) revealed that individual Bangladeshi banks can enhance their performance by increasing the size of their board, within the limits defined by the regulatory body of the country. On the other hand, the relationship between market capitalization and firm performance has been extensively examined by Pavone (2019), Qurashi and Zahoor (2016), and Jaya and Sunder (2012). Their research shed light on the role of financial variables, such as return on assets, return on equity, and net worth, derived from balance sheet analysis in reducing information asymmetries between management and potential investors, thereby enhancing market efficiency.

The following hypotheses are tested in order to evaluate the effects of corporate governance mechanisms on market capitalization:

- $H_{01}$: The presence of corporate governance does not exhibit a statistically significant correlation with market capitalization.
- $H_{02}$: The existence of board committees does not demonstrate a statistically significant association with market capitalization.
- $H_{03}$: The level of board independence does not display a statistically significant relationship with market capitalization.
- $H_{04}$: The size of the board does not indicate a statistically significant correlation with market capitalization.
- $H_{05}$: The structure of shareholding ownership does not reveal a statistically significant relationship with market capitalization.
- $H_{06}$: The value of the firm does not manifest a statistically significant correlation with market capitalization.
- $H_{07}$: The return on assets does not exhibit a statistically significant association with market capitalization. $H_{08}$: The return on equity does not demonstrate a statistically significant relationship with market capitalization.

In order to test the above hypotheses; the study estimates the following linear regression model:
Model: \[ \text{MCap}_{it} = \beta_0 + \beta_1 \text{BS}_{it} + \beta_2 \text{BI}_{it} + \beta_3 \text{BC}_{it} + \beta_4 \text{OS} + \beta_5 \text{ROA} + \beta_6 \text{ROE} + \beta_7 \text{NW} + e_{it} \]

**Independent Variable:**
- Board size (BS)
- Board Independence (BI)
- Board committees (BC)

**Control/Mediator:**
- Return on Assets (ROA)
- Return on Equity (ROE)
- Firm value or Net Worth (NW)

**Dependent Variable:**
- Stock market Capitalization (MCap)

**Figure 1. Conceptual Framework**

**METHODOLOGY**

The focus of this study was on the listed companies of the DSE. The selection of firms was based on the availability of data covering a period of eight years (2015 to 2022). Consequently, a total of forty-one companies were identified as the sample.

**Table 1. Operational Variables, and Measurement Scale**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Measurement scale</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board size (BS)</td>
<td>Assigning 1 point to each board member</td>
<td>Dissanayake et al., 2014; Reddy &amp; Locke, 2010; Lei and Song, 2012; Tapal &amp; Dogon, 2014; Ibrahim &amp; Salihu, 2015, Muchemwa &amp; Padia, 2016 and Ahmad &amp; Sallau, 2018.</td>
</tr>
<tr>
<td>Board Independence (BI)</td>
<td>Number of independent directors / total board of directors</td>
<td>Pandya, 2011</td>
</tr>
<tr>
<td>Board committees (BC)</td>
<td>Assigning one point to each committee</td>
<td>Jo and Harjoto, 2011</td>
</tr>
<tr>
<td>Ownership structure (OS)</td>
<td>Total No. of the shares hold by the general public</td>
<td>Jo and Harjoto, 2011; Ghazali, 2010; Mangunyi, 2011.</td>
</tr>
<tr>
<td>Stock Market Capitalization (MCap)</td>
<td>Market Share Price multiplied by No. of the shares of the respective company</td>
<td>Sayilir, 2012</td>
</tr>
</tbody>
</table>
Corporate governance mechanisms do not possess a universally accepted status, which consequently leads to the existence of diverse definitions, instruments, metrics, and indexes within the realm of corporate governance studies. In order to conduct this study, a review of literature was conducted to analyze different corporate governance indices. Table 1 presents a comprehensive summary of the operational variables utilized in all the estimated model of the study. Consistent with previous literature (Barth et al., 1998; Francis, J. and Schipper, K., 1999; and Beisland, Hamberg, and Novak, 2010) this study used yearly observations. Data was collected from the sample company’s annual reports, and market capitalization data was collected from the DSE database. This study used SPSS, Eviews 10.0, and Microsoft Excel Sheet for analyzing collected data.

RESEARCH RESULT

Tables 2 illustrate the parameters of corporate governance for firms operating in DSE. The foremost parameter concerns the size of the board of directors. Previous research has indicated that the optimal size of the board of directors varies between 4 and 19 individuals. A remarkable 89% of companies in the DSE meet this criterion, which is highly advantageous and encourages the implementation of effective corporate governance practices. The second parameter reveals the independence of the board of directors. Board independence holds utmost importance as a corporate governance mechanism due to its potential to mitigate financial scandals and corporate failures. The lowest level of board independence among the sampled firms was 10%, whereas the highest level of board independence reached 90%. The mean level of board independence stood at 22%, with a standard deviation of 12.65%. Among the sampled firms, the smallest number of board committees was one, while the largest number of committees reached five, resulting in a range of four committees.

Table 2. Descriptive Measures

<table>
<thead>
<tr>
<th>Operational Variables</th>
<th>Min.</th>
<th>Max.</th>
<th>( \bar{x} )</th>
<th>( \sigma )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Market Capitalization (MCap)</td>
<td>580.4</td>
<td>222544.6</td>
<td>27278.0</td>
<td>39155.60</td>
</tr>
<tr>
<td>Board size (BS)</td>
<td>4.00</td>
<td>19.00</td>
<td>8.888</td>
<td>3.33053</td>
</tr>
<tr>
<td>Board Independence(BI)</td>
<td>.10</td>
<td>.90</td>
<td>.2199</td>
<td>.12650</td>
</tr>
<tr>
<td>Board committees (BC)</td>
<td>1.00</td>
<td>5.00</td>
<td>1.881</td>
<td>.86091</td>
</tr>
<tr>
<td>Ownership structure (OS)</td>
<td>.00</td>
<td>.73</td>
<td>.2670</td>
<td>.16821</td>
</tr>
<tr>
<td>Return on Assets) (ROA)</td>
<td>.01</td>
<td>44.39</td>
<td>6.807</td>
<td>7.14139</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>.02</td>
<td>462.18</td>
<td>17.22</td>
<td>35.37334</td>
</tr>
<tr>
<td>Firm value or Net Worth (NW)</td>
<td>41.43</td>
<td>9405.85</td>
<td>1177.7</td>
<td>1435.94</td>
</tr>
</tbody>
</table>

Source: Author’s calculation

The inclusion of a fourth dimension in corporate governance entails the establishment of a regulation dictating that the proportion of shares owned by the most prominent shareholder in a company should not surpass 20% of the
total ownership of the company. The purpose behind this regulation is to shield against the ascendency of a small group in the process of decision-making, thereby disregarding the interests of the broader group. In this regard, the lowest ownership structure observed among the sampled firms was 0%, while the highest ownership structure reached 73%. Descriptive statistics indicate a mean ownership structure of 26%, with a standard deviation of 16.18%.

Scholars such as Pallant (2011) and Bryman and Cramer (1997) argue that employing simple correlation poses no detrimental consequences as long as it does not surpass the thresholds of 0.80 or 0.90. Table 3 illustrates the results derived from the correlation matrix, which suggests that the observed correlation between the variables does not exceed 0.80, indicating the absence of multicollinearity among the operational variables. The assumption of multicollinearity can also be assessed through examining the values of tolerance and variance inflation factors (VIF). From Table 3, it can be observed that the tolerance values for all independent variables are less than 1, while the VIF values range from 1.090 to 1.429, all of which are less than 10. These findings indicate the absence of multicollinearity among the independent variables.

### Table 3. Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>MCap</th>
<th>BS</th>
<th>BI</th>
<th>BC</th>
<th>OS</th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCap</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>.080</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>.274**</td>
<td>.387**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>.188**</td>
<td>.334**</td>
<td>.234**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OS</td>
<td>-.224**</td>
<td>-.185**</td>
<td>-.337**</td>
<td>-.011</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>.525**</td>
<td>.079</td>
<td>.009</td>
<td>.037</td>
<td>-.260**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>.424**</td>
<td>-.038</td>
<td>-.024</td>
<td>.012</td>
<td>-.026</td>
<td>.266**</td>
<td>1</td>
</tr>
<tr>
<td>NW</td>
<td>.494**</td>
<td>.009</td>
<td>.219**</td>
<td>.043</td>
<td>.024</td>
<td>.092</td>
<td>.106</td>
</tr>
</tbody>
</table>

*Note: (**) indicates the 1% level of significance.*
*Source: Author’s calculation*

Prior to conducting the regression analysis, several assumptions were evaluated, including linearity, normality, homoscedasticity, and independence of errors. The results revealed no issues with linearity, normality, homoscedasticity, or independence of error terms. In other words, it was established that all the necessary statistical assumptions for multivariate statistical techniques were met. The fulfillment of these assumptions ensures the validity and reliability of the obtained results. The findings of the multiple regression analysis between variables related to corporate governance mechanisms and market capitalization (MCap) are presented in Table 3, displaying the corresponding coefficient value and t-value. The significance levels represented by the denotations of *, ** or *** at 1%, 5% and 10% respectively. The Durbin-Watson shows a value close to 2, indicating the absence of autocorrelation.
Furthermore, the R-squared coefficient has been determined to be 0.597518, signifying that approximately 60% of the variation in the dependent variable (MCap) can be elucidated by the inclusion of the independent variables within the model. To assess the overall significance of the estimated regression model, this study has opted to employ an F-test with a P-value at the significance level of 0.05. The results provide sufficient evidence to conclude that at least one of the $\beta_i$ coefficients, where $i=1,2,3,4,5,6,7$, is not equal to zero at a significance level of 0.05. This finding confirms that the model as a whole is statistically significant.

The table 4 provides valuable evidence that supports certain relationships. Specifically, it indicates statistically significant positive correlation between Market Capitalization (MCap) and Board Committee (BC). This finding confirms that BC has a positive impact on MCap. The size of the board committee is considered an important characteristic that contributes to the effective discharge of its duties, as highlighted by the Cadbury Committee in 1992 (Dedman, 2002). Additionally, the table discloses another positive and statistically significant association between market capitalization (MCap) and the level of board independence. This further corroborates the findings of McCabe and Nowak (2008) that the inclusion of independent directors on the board effectively contributes to their active supervision of management.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coeff.</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1545.63</td>
<td>608.241</td>
<td>-2.496</td>
<td>0.0131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>628.19</td>
<td>1856.76</td>
<td>3.375</td>
<td>0.000*</td>
<td>0.772</td>
<td>1.296</td>
</tr>
<tr>
<td>BI</td>
<td>488.59</td>
<td>1453.92</td>
<td>3.448</td>
<td>0.000*</td>
<td>0.700</td>
<td>1.429</td>
</tr>
<tr>
<td>BS</td>
<td>-767.40</td>
<td>508.3137</td>
<td>-1.509</td>
<td>0.132</td>
<td>0.866</td>
<td>1.155</td>
</tr>
<tr>
<td>OS</td>
<td>-180.84</td>
<td>915.540</td>
<td>-1.914</td>
<td>0.056***</td>
<td>0.844</td>
<td>1.185</td>
</tr>
<tr>
<td>NW</td>
<td>10.66</td>
<td>1.084327</td>
<td>9.835</td>
<td>0.000*</td>
<td>0.795</td>
<td>1.258</td>
</tr>
<tr>
<td>ROA</td>
<td>254.02</td>
<td>226.7384</td>
<td>9.500</td>
<td>0.000*</td>
<td>0.917</td>
<td>1.090</td>
</tr>
<tr>
<td>ROE</td>
<td>304.16</td>
<td>43.89421</td>
<td>6.929</td>
<td>0.000*</td>
<td>0.912</td>
<td>1.096</td>
</tr>
<tr>
<td>R²</td>
<td>0.597518</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.587420</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>59.17135</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P (F-statistic)</td>
<td>0.000*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.749550</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s calculation

However, the relationship between Ownership Structure (OS) and MCap, although significant at the 0.05 level, is found to be in the opposite direction of what was expected. As a result, Hypothesis 5 is not supported. Similarly, Board Size (BS) is found to be insignificantly associated with MCap, and the direction of this association is negative. This finding aligns with previous studies by Ehikioya (2009), Haniffa and Hudaib (2006), Pantamee and Ya’u (2018), and
Gambo, et al, (2018). However, it contradicts the findings of Dey & Chauhan, (2009), and Tapal and Dogon (2014). One possible explanation for this relationship is that the domination of the CEO over board activities and the asymmetry of information about the CEO may hinder the board's ability to effectively monitor the company, as suggested by Kamardin (2009). Proceeding to analyze the influence of control variables on the market capitalization (MCap), the outcomes furnish additional substantiation that the net worth (NW), return on assets (ROA), and return on equity (ROE) positively affect the market capitalization. This outcome serves as confirmation for the hypothesis presented, as indicated by the coefficients β5, β6, and β7 being greater than zero.

DISCUSSION
Considering the aforementioned discussion, it is evident that:
1. A statistically significant positive correlation between Market Capitalization (MCap) and Board Committee (BC) concerning the level of board independence suggests that larger companies tend to establish more comprehensive board committee structures, potentially contributing to higher levels of board independence. This correlation indicates a relationship between company size, governance structures, and efforts to maintain greater independence in decision-making processes at the board level.
2. A significantly negative relationship between Ownership Structure (OS) and Market Capitalization (MCap) suggests that companies with more dispersed or fragmented ownership structures might face challenges in market valuation compared to companies with more concentrated ownership. The relationship highlights the potential impact of ownership concentration or dispersion on market perception, control, investor confidence, and ultimately, market capitalization.
3. A positive effect of Net Worth, Return on Assets, and Return on Equity on Market Capitalization suggests that companies with stronger financial positions, efficient asset utilization, and higher profitability tend to be valued more by the market. Investors perceive such companies as having better growth prospects, financial health, and profitability, which positively influences their market valuation.

CONCLUSIONS AND RECOMMENDATIONS
This study examines the impact of corporate governance, specifically board size (BS), board independence (BI), board committees (BC), and ownership structure (OS), on the market capitalization of companies operating in Bangladesh. The findings suggest that the level of corporate governance within a company demonstrates a linear correlation with its market capitalization. In particular, a positive and statistically significant linear relationship is observed between board independence and market capitalization, implying that a higher degree of board independence results in a greater market capitalization, which signifies a positive reputation in the market. This finding is advantageous for promoting effective governance.
On the contrary, there exists a noteworthy adverse correlation between the structure of ownership and the market capitalization, thereby suggesting that the ownership expresses dissatisfaction with the conduct of the reporting entity and lacks confidence in corporate reporting. This unfavorable circumstance impedes the establishment of effective corporate governance. As a result, it is deduced that the present condition of corporate governance is considerably inadequate and necessitates immediate attention to reestablish stakeholder trust in the capital market and society in general.

Additionally, the discoveries disclose a constructive and significant linear connection between board committees and market capitalization, implying that a larger committee possesses greater organizational prestige, authority, and knowledge base. This finding supports the hypothesis that corporate governance adds value to companies, and investments aimed at implementing effective governance systems yield net positive benefits. Therefore, efforts should be made to encourage listed companies to enhance their corporate governance systems.

ADVANCED RESEARCH

Small Sample size is the major limitation of this study. Moreover, certain external and internal factors with potential impact were not accounted for in the study sample such as earnings quality, corporate social responsibility, potentially shedding further light on the significance of corporate governance in the economic landscape of Bangladesh.

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