Moderating Effect of Leverage on the Relationship between Board Size, Board Meetings and Performance: A Study on Textile Sector of Pakistan

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Abstract

Extensive research relating to corporate governance and performance of firms have been carried out, however less research has been carried relating to developing countries like Pakistan. The purpose of the study is to examine the relationship of corporate governance (CG) tools (board size, board meetings) with performance (ROA) of listed textile firms on the Pakistan stock exchange. Leverage (FLEV) has been accommodated as a moderator in the study, data has been collected concerning to 30 textile firms from the period 2015 to 2017 and multiple regression technique has been employed in the research to assess the relation among corporate governance and firm performance. The study found that both board size (BS) and board meetings (BM) have a significant impact on the textile firm’s performance, moreover the moderating effect of leverage was found to be significant on the relationship between BM and performance of textile, but insignificant on the relationship of board size and performance. This study provides helpful information for regulators as well as management of textile firms to enhance policies relating to corporate governance ahead.

\textbf{Keywords:} Board Size; Board Meetings; Leverage; Corporate Governance; Performance.

1. Introduction

Attention on corporate governance (CG) has been expanding throughout the years as favorable corporate governance can secure the organization from crisis.
Previously the attention of researchers pertaining to corporate governance has been on developed countries and little attention has been given to emerging economies like Pakistan which requires research to be carried [1,2].

The term corporate governance (CG) is known to many in various meanings as corporate governance is to establish that the company activities are efficiently managed by also providing fair return to the investors [1].

Also corporate governance understanding is of something extensive than corporate management, while also attaining strategic goals [2]. Compelling corporate governance activities handle shareholders matters, which would assure that a company has solid accountability for the organization likewise also compressing the level of misuse, extortion and establishing overall success for the company. Similarly feeble corporate governance would cause misuse and distrust for the public confidence [3].

According to Co-operation and Development Report (2004) the world faced abounding scandals like World com, Enron for which companies started to focus on concerns of corporate governance, also the collapse of Enron and MCI for preserving fraudulent accounts served as the catalyst to new U.S. control or governance as the Sarbanes-Oxley Act of 2002, which treated to be highly extensive governance control or adjustment in the past 70 years [4]. The regulatory authorities for corporate governance in Pakistan for financial sector are being governed by the State Bank of Pakistan (SBP) whereas the non financial sector’s regulator is the securities and exchange commission of Pakistan [5]. State Bank of Pakistan monitors and has provided guidelines to the financial sector more effectively than recent years. According to OECD survey, in 2014 the code and principles of corporate governance in Pakistan has been updated. Many contended that corporate governance has a crucial part in governing the operations of the firm [8,9].

Corporate governance is an instrument with which administration takes crucial strides to shield the interests or significance of related parties. Corporate governance proceedings are used to make sure that control and ownership are in independent hands, and this many much of time leads to agency problems [6]. The theory that depicts the distinction of interests among managers and shareholders is known to be the “Agency Theory”. A concern pertaining to corporate governance is an issue in the modern sector of various emerging countries for example, Pakistan. Improved governance allows effective environment for working and it establishes better accountability. One of the crucial confrontations in the industrial sector of Pakistan is that of corporate governance. Likewise textile sector which is thought to be the Pakistan economies backbone, as it is one the biggest sector in Pakistan and contributes to about more than 50% in the GDP and exports [7]. Recently as per the data of Pakistan bureau of statistics (PBS) the textile industry of Pakistan has been facing abounding issues relating to energy and power crises, increase in cost of production, lack of new investment, low technology base and unambiguous law and order situation that caused a severe deterioration of the performance in the global market as it lead towards a decline in the growth. Numerous researches have been carried out, but fewer studies have been carried out accommodating the collective effect of board size (BS) and board meetings (BM) with firm performance. Moreover, the existing literature is dubious and limited on considering the collective impact of BS and BM to enhance the company performance, meaning BS has a positive impact on the performance [5] [8], while on the other hand [9] highlighted that it has a negative impact with performance. Likewise, BM have a positive impact on the performance [10], while on the other hand [11] highlighted it has negative impact with
performance.

In response to this problem, a research upon the combined association of BS and BM with performance on the textile sector of Pakistan is studied. It would be helpful in finding out the central point of corporate governance system in Pakistan for the recent years. The purpose of this research is to assess the relationship of BS and BM with performance, also assessing the moderating impact of leverage on the accord among BS and BM with performance. Hence with aforementioned framework, the objective of this research is as shown below:

- To find the relationship between BS and performance of firms.
- To find the relationship between BM and performance of firms.
- To find the moderating impact of leverage on the accord among BS and organizations performance.
- To find the moderating impact of leverage on the accord among BM and organizations performance.

2. Literature Review

Agency theory has been established upon the presumption that both principal and agent interest changes and principal can diminish the gap of concern by offering certain incentives to the agent also to meet the cost to keep an eye on the agent [16,10]. Principal take every measure to avoid from agency problem [12] and one measure is to establish the BOD [6] contrasting aspects of the management can aid to accomplish the objective of superb governance and conclusively affect financial performance.

Board activities are heavily reliant on agency theory as with the passage of time the research on impact of CG and performance has been expanding due to importance of corporate governance being realized. To date, literature is so diverse and researchers have no consensus about the outcome [13]; CG and performance. [14] Reported as that mechanisms relating to governance have sufficient effect on firm performance, likewise [15] researched corporate governance effect on firm performance for new technology ventures and reported relevant relation among performance and CG. Moving forwards [8] also reported significant relation among mechanisms relating to CG and performance whose research was carried on the firms listed on the Pakistan Stock Exchange (PSX).

Whereas, [16] research pertained to accommodating the use of structural equation model to establish a linkage among corporate governance, capital efficiency and performance of firms, reported no direct association among CG and firm’s performance. Similarly [17] research pertained to corporate governance (CG), capital structure (CS) and performance from the context of Thailand economy, which also included a mediator variable leverage, reported that corporate governance is not associated with leverage and firm performance. Nevertheless great governance process would lead to better control enhancing the overall efficiency and leading towards better performance. Directors play a vital role for superb governance and various researches have been carried out using many different characteristics of the board which can be seen in table (1). Hence in this research the CG tools which have been used pertain to board size (BS), board meetings (BM) and a moderator as leverage (FLEV).
Table 1: Variables Employed by Researchers

<table>
<thead>
<tr>
<th>Reference</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>[14]</td>
<td>Board size, outside directors, CEO duality, managerial ownership and ownership concentration</td>
</tr>
<tr>
<td>[18]</td>
<td>Board size and Board composition</td>
</tr>
<tr>
<td>[3]</td>
<td>Board size and gender diversity</td>
</tr>
<tr>
<td>[19]</td>
<td>Board size, proportion of non-directors, directors shareholdings, CEO duality,</td>
</tr>
<tr>
<td>[11]</td>
<td>Board meeting frequency</td>
</tr>
<tr>
<td>[20]</td>
<td>Board size, activity, and number of commissions, presence of independent directors, board diversity.</td>
</tr>
<tr>
<td>[8]</td>
<td>Board size, Board structure, CEO duality, audit committee</td>
</tr>
</tbody>
</table>

2.1 Board Size (BS), Board Meetings (BM) and Leverage (FLEV)

Size of the board of directors plays a crucial part in the management's capability to oversee managers [21]. According to [5] the link among BS and performance is positive. Similarly [22] found that performance gets better with BS for convoluted companies. According to [8] elucidated that BS has a momentous relationship among BS and two mechanisms used for firm performance. Whereas [9] conducted a research on CG and performance of companies in Iran and highlighted an adverse relation of BS with the performance. Hence overall these researches suggest as board size increases the firm performance tends to improve, the reason maybe that as board size increases it would lead to employment of better more expertise and responsibility sharing. Also small BS may be less effective to monitor the compelling managers. A positive and compelling relationship among BM and firm’s performance is reported in a European countries study [23]. Similarly [10] reported boards that meet more persistently improve the firm’s financial performance. On the contrary, [24] found board meetings to have no relation with performance by taking a lesser sample of 24 firms pertaining to time period 2000-2005. According to [24] performance which is associated with efficient management exercises of the company, which are less likely affected by the BM’s held by the board. Similarly [11] reports an inverse relationship of number of board meetings with the firm performance. Similarly due to the inconsistent findings in the literature where different researchers found mixed results of board size, board meetings with performance. Hence the study first of all engages to the see the combined effect of BS and BM on performance of companies and second accommodates the use of a moderator which is taken as financial leverage which was also has been employed [25]. Therefore according to the aforementioned rebuttal, the framework for the study has been constructed

Theoretical Framework

![Diagram of Theoretical Framework](image)
Therefore, pertaining with discussion rose above, the successive hypothesis is established:

H1: There is a significant impact of BS on performance of companies.

H2: There is a significant impact of BM on performance of companies.

H3: Financial Leverage has a significant moderating effect on the relationship between BS and performance of companies.

H4: Financial Leverage has a significant moderating effect on the relationship of BM and performance of companies.

3. Materials and Methods

To determine the impact pertaining to CG tools with companies’ performance, this study employed the procedure used in previous research work on the affair, as previous work employed quantitative techniques to gather data. The unit of analysis pertains to textile firms and the data has been collected from online websites of textile firms from period 2015-2017. Random sample has been drawn while collecting the data; the sample includes 30 textile companies and includes the companies as shown in table (2).

<table>
<thead>
<tr>
<th>Table 2: Textile Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Textile firm</td>
</tr>
</tbody>
</table>

The dependent variable which is companies’ performance is being assessed by accommodating a proxy of return on assets (ROA). ROA signifies level of revenue a firm is able to derive with relation to the level of assets the firm has. ROA has been utilized by various previous researches in finding the accord between CG and companies performance. The use of ROA has been employed as an accounting based measure for performance [30,31]. Similarly the independent variable utilized in the research includes BS which is the overall member of boards in the company, BM which is total number of meetings held by the board members and lastly leverage as the proportion of liabilities to assets.

4. Results and Discussion

Multiple regression technique has been employed in research to determine the relationship of CG tools with companies’ performance [23,13]. Where the performance is accommodated by the use of ROA and corporate
governance tools are utilized by using board size, gender diversity and board meetings for which the model of the research pertains to:

$$ROA = \beta_0 + \beta_1BS + \beta_2BM$$

As: Y has been labeled as the DV; β0 represents intercept; X is labeled as the independent variable. As per the analysis of data carried out the results are as follows.

### Table 3: Descriptive Analysis

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>30</td>
<td>-0.15</td>
<td>0.06</td>
<td>-0.0160</td>
<td>0.05076</td>
</tr>
<tr>
<td>BS</td>
<td>30</td>
<td>7.00</td>
<td>9.00</td>
<td>7.5333</td>
<td>0.81931</td>
</tr>
<tr>
<td>BM</td>
<td>30</td>
<td>4.00</td>
<td>9.00</td>
<td>4.7333</td>
<td>1.28475</td>
</tr>
<tr>
<td>LEV</td>
<td>30</td>
<td>0.21</td>
<td>1.35</td>
<td>0.6203</td>
<td>0.28096</td>
</tr>
</tbody>
</table>

For the use of ease of analysis IBM SPSS software has been utilized. Table (3) represent the summary of descriptive which involves the mean, median, minimum, maximum and standard deviation of board size, board meetings, leverage and firm performance (ROA) are given. The total number 30 simple relates to the total number textile firms which were taken, First of all, BS which is the overall members in the board which display the minimum number of members in a board relate to 7 members while the maximum number in a board relate to 9 members although the average size of the board pertains to be 7 members which is similar to the study based in Pakistan firms reported by [5]. The average number of board meetings pertain to 5, whith a range of 4 to 15 meetings held by a board, also the S.D of board meetings pertain to 1.95. Likewise leverage is taken as a moderating variable gives a minimal number of 0.21, whereas a maximum of 1.35. Similarly mean leverage pertains to be 0.6203. Lastly the performance variable return on assets (ROA) relates to as the average ROA to be -0.0143 with values ranging from -0.31 to 0.20.

### Table 4: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adj R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.556</td>
<td>.310</td>
<td>.258</td>
<td>.04371</td>
</tr>
</tbody>
</table>

Coefficient of determination (r2) as shown in the above table (2) explains that how much variation in the dependant variable is elucidated by the predictor variables. Furthermore the value of coefficient of determination (r2) ranges from 0 to 1. As per the above table, the value of R is 0.556 (55.6%) which relates to strong correlation among board size, board meetings with the performance of textile firms. Moving forward the
adjusted value of R square relate to 0.258, meaning that 25.8% of the variation in the performance of textile firm is elucidated by board size and board meetings and the rest 74.2% is explained by other factors or variables.

### Table 5: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squ</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.023</td>
<td>2</td>
<td>.012</td>
<td>6.055</td>
<td>.007</td>
</tr>
<tr>
<td>Residual</td>
<td>.052</td>
<td>27</td>
<td>.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.075</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similarly table 5 which is the ANOVA table shows the goodness of fit (GOF) of the model, if the value or number is greater to 5, hence it is said to be fit model. As from the above table that the value is 6 which show the model is a good fit.

### Table 6: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>UnstandCoeffi</th>
<th>StandCoeffi</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con</td>
<td>-.110</td>
<td>.087</td>
<td>-1.254</td>
<td>.220</td>
</tr>
<tr>
<td>BS</td>
<td>.022</td>
<td>.100</td>
<td>2.148</td>
<td>.041</td>
</tr>
<tr>
<td>BM</td>
<td>-.015</td>
<td>.006</td>
<td>-2.286</td>
<td>.030</td>
</tr>
</tbody>
</table>

The following table (6) which shows the coefficients. Coefficients of both the variables taken in the study are shown above. Board size has a significant result as the p value came out to be 0.041 which is less than 0.05, thus accepting H1. Likewise board meetings also proved to show a significant result as the p value came out to be 0.030 which is less than 0.05, hence accepting H2. Analysis that has been conducted, leads to the making of the following equation:

\[ ROA = -0.110 + 0.022BS - 0.015BM \]

In the above equation or model

BS = Number of member in the board

BM = board meetings held by the organization

The results relating to -0.110 explains as the variable of board size and board meetings remain constant or do not change, organization performance is -0.110.

Secondly, the value relating to the coefficient of board size is 0.022, this relates to explain that a one rise in board size would also raise the performance of the firm by 0.022. Lastly, the value relating to the coefficient of board meeting is -0.015 which explains that any one increase in the meetings held a year would lead to a -0.015 decline on organizations performance.
Table 7: Coefficients

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-.011</td>
<td>.009</td>
<td>-.369</td>
<td>-1.268</td>
</tr>
<tr>
<td>moderator_Lev_BM</td>
<td>-.011</td>
<td>.005</td>
<td>-.369</td>
<td>-2.099</td>
</tr>
</tbody>
</table>

However the conclusion gauged out from the analysis of moderating effect on the relationship of BS tested to be insignificant as p-value came to 0.8273 in model 2 which is more than 0.05 hence neglecting H3. On the other hand the results gained from analyzing the moderating effect on the accord of BM and company performance proved to be significant as the p-value came to 0.045 in model 3 which is less than 0.05 hence accepting H4, as shown in the above table (7).

5. Conclusion

BS relates to being one of the crucial aspects of CG, as the directors or members of the board are liable to support performance of the company, plus also assuring shareholders concerns or interests to be protected. The current study does support the hypothesis that BS has a compelling effect on the organizations performance and is consistent with the findings of [26]. Even though empirical results on size of board and performance of firms are ambiguous, [19] expressed an adverse affair of size of the board with performance of the firm. However the findings in the study support the fact that a larger size of the board, meaning more members in the board would lead to diversified skills and expertise which would ultimately lead to different views being shared upon various matters and ultimately which would lead to enhanced effect of the performance of the organization.

Likewise the hypothesis pertaining to BM also proved to have a compelling effect on organization performance which has been accepted through empirical findings. Even though empirical results on BM and performance of firms are ambiguous, where [5] found BM to be insignificant. Whereas [27] found firms with feeble performance, increasing the BM held by the management led to enhanced performance, hence it shows that firms carrying out more board meetings are efficiently and effectively able to communicate appropriate information to the board. Likewise board meetings also reduce costs plus enhancing board members engagement in the meetings. The prevailing and the literature which has been studied or considered, displayed a compelling or immediate use of effective CG laws and standards in Pakistan. Where as effective CG will lead to reduction in debt, bringing in better opportunities for investment in future for organizations in Pakistan, causing future prosperity of the Pakistan economy. The rules of CG have been further revised in 2014 by the SECP, including further standards and measures set for the organizations to follow.

Similarly the moderating effect of leverage shows an insignificant effect on the relationship of BS with
organization performance, but the moderating impact of leverage demonstrated to have a compelling accord on the relationship of BS and organization performance. The prevailing study pertains to include certain implications to corporate governance literature. The present study adds in the work carried out for CG aspect exclusively from developing countries point. Even though level of governance has improved in Pakistan since strict actions have been taken from the perspective of the regulatory authorities SECP. Hence the textile organization of Pakistan should adhere to the standards or rules of CG, where CG activities have substantially been enhanced in Pakistan, but its full potential still needs to be achieved.

6. Limitation and Recommendations

Similarly the present research is not free of limitations as the data pertains for a fewer time period relating to two years also the performance sample corresponds to a single sector. Moreover the current study has employed only two CG tools relating to BS and BM, Hence further research can be conducted by employing data pertaining to the time period from 2001 to 2017 by also accommodating various sectors or companies which are listed on the Pakistan Stock Exchange. Likewise the accord among CG and organization performance of firms can farther be searched by employing board characteristics pertaining to multiple countries to engage a comparative study relating to corporate governance standards being followed in different countries. The comparative study can also be engaged by incorporating various sectors and involving more CG variables as board independence and independence of audit committee, board composition, CEO duality etc.

Reference


