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Corporate governance, board practices and performance of shipping firms in Bangladesh

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ABSTRACT

This study attempts to take a close look on corporate governance, board practices and performance of shipping firms in Bangladesh. The study has conducted a survey on 24- shipping firms operated in Bangladesh and collected perceptional data from top tier executives and factual data from firms balance sheet and income statement. The results of descriptive statistics show that most of the firms' managers are not aware about the corporate governance and board practices of the firm. Moreover, there is significant lack of transparency in the board practices documented among the shipping firms in this study. The results of regression analysis confirm that board ownership, board leadership, board size, and firm size have significant impact on firm performance. Moreover, factual analysis results show that board leadership has significant impact on firm performance. However, this study also confirmed that board composition has no significant impact on firm performance in the context of Bangladeshi shipping firms. Thus, this is of the essence to spotlight on corporate governance policies in the shipping firms to make legal aspects of board practices to escalate the growth of shipping industry in Bangladesh.

1. Introduction

With expansion of international trade, shipping industry has emerged as one of the most prospective service industries all over the world. Shipping is the safest and the most environmentally benign mode of transportation in international trade and also the only mode of transportation which can carry such bulk amount of products at the lowest cost. In Bangladesh with huge maritime boundary in the Bay of Bangle, shipping is one of the emergent industries.

Corporate governance is an area of interest to researchers, stakeholders and the general public. In recent times, there has been an increased concern about the effectiveness of the board practices within business organizations due to corporate scandals and accounting irregularities of some well-known firms. The outcomes of firms' inefficiency take place due to lack of monitoring in the board activities as well as managerial decision-making process. This paper aims to investigate the effects of a number of factors such as organizational demography, organizational size, ownership type, board size, CEO duality and CEO dependence/independence on board configuration in the shipping firms of Bangladesh.

Bangladesh is truly a maritime nation with 1, 66,000 sq. km area of sea, large quantity of living and non-living resources. There are more than 200 rivers all around the country, with a total length of about 22,155 km, which occupy about 11% of total area of the country (Shemon, 2017). Here, rivers and water transports play a vital role for inland commercial activities and economic development. The eighty five percent of export and import of this country are sea borne (Jagnoor et al., 2019). At present more than 5000 inland/coastal ships are operating all over the country, which carry more than 90% oil product, 70% cargo and 35% passengers of total country's demand (Rouf et al., 2019). Shipping industry is considered one of the most important components of blue economy that has huge scope to thrive in Bangladesh. This country has ample of opportunities through ship transport as blessed of wonderful network of rivers along with vast sea-area at the end of its southern part. The inland water ways and huge maritime boundary promote national and international trade that created a competitive advantage for Bangladesh in the South Asian region. Although Bangladesh is one of the promising economies with highest level of economic growth in the region but the governance issues in the shipping sector is still at an initial stage.

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The Bangladesh Shipping Corporation Ltd. (BSC) was established on 5th February1972. Moreover, nowadays both private and foreign ownership firms are operating in the shipping market of this country. The foreign shipping companies are providing shipping services to Bangladeshi traders either via their own local offices or their agents. We have categorized shipping firms into three types based on ownership structure (See Appendix; Table 8). The first category is state owned shipping firms. BSC is the only public limited government shipping firm. The second category is private shipping firms owned by local business group where fifteen companies are operating with their own ocean going vessels. The third and last category is private shipping firms with foreign ownership, where eight companies are operating in Bangladesh. Basically, last segment is controlling the lion share of shipping industry of Bangladesh.

The economic growth rate of Bangladesh has shown a landmark progress in the last couple of years. This country has exposed the indication to become emerging Asian tiger because of steady economic growth and financial development in the South Asian region (Alom, 2018a). The growth rate has reached at a level of 7.85% and 8.15% in the year of 2018 and 2019 respectively. In general, the high level of GDP growth rate indicates the probable development of some potential industries such as shipping industry is one of them.

This study has rudimentary motive to investigate the present condition of corporate governance in shipping industry of Bangladesh. The study also explores a number of factors such as organizational demography, organizational size, ownership type, board size and CEO dualities have effect on board configuration. Finally, this study will investigate the impact of corporate governance indicators on firm performance in the context of Bangladesh shipping industry both factual level and perceptional level of top management. The perceptional survey on the top management is the essential value addition in this paper in addition to factual analysis. As, till today all corporate governance literatures focused on factual analysis, however top managers are the responsible entity for execution of governance in the firm. Thus, we felt their perception is vital to investigate the corporate governance and firm performance relationship dynamics.

2. Literature review

Corporate Governance (CG) mainly controls how well the interest of the stakeholders are being maintained, reflecting the need for accountability in handling money and the ways of commercial activities. It primarily aims to enhance corporate transparency and accountability (Thapa, 2008). It is extensively recognized that transparency enhances trust among the major players within the governance framework and CG is equally important for all types of corporate institutions for long run sustainability and performance. CG is a significant area of interest in the modern economics, finance and business literature. The developing countries need to pay more attention about CG for long-term development in the corporate sectors (Shleifer & Vishny, 1997). Most of the influential early studies had tremendous focus on the governance practices, CEO duality, and firm performance in the advanced market-economies. However, existing literature on CG postulated many debates considering positive and negative dimensions of governance mechanism. Easterbrook and Fischel (1991) and Romano (1993) commented and found good impacts of governance in the US economy. On the other hand, Jensen (1993) focused the faulty governance mechanism and recommended major revision.

The necessity of CG arises from the possible conflicts of interest among different stakeholders in the organization. These conflicts of interest often arise from two reasons. First, different stakeholders have different preferences and objectives. Second, the stakeholders have inadequate information as to each other's knowledge, preferences and activities (Mahmood, 2006). The requirement of CG is about how owners of shipping firms can safeguard its properties and the returns generated by those properties are used efficiently and in their best interests by the managers given with powers to operate those properties (Giannakopoulou et al., 2016).

A bulk amount of literatures have shed light on governance practices, CEO characteristics and firm performance. Nelson (2005) postulated in the better performing firms' shareholders have intention to empower the board of directors. On the other hand, in the poor performing firms they are more prone to commence governance change such as poison pills that circumvent shareholder approval etc. In an unadorned view, the urgency of CG came in radiance as the conflicts of board and CEO, emphasized in the agency theory. Where, the main argument is protection of mass shareholders interest of the firms by monitoring CEO (Fama & Jensen, 1983). Therefore, CEO duality might be the best solution to mitigate conflicts scenario of firms but unfortunately Finkelstein and D'aveni (1994) mentioned CEO duality as double-edge sword. However, many studies noticed that there is no correlation between CEO duality and firms' performance (Berg & Smith, 1978; Chaganti et al., 1985; Daily & Dalton, 1992).

The corporate governance literatures have another dimension that is board characteristics and firm performance. Boards of directors are the vital part of governance as they control the firm's operation and strategic decisions. A higher financial performance was rarely found among those firms who's, monitoring component was more than 50 percent level on board characteristics; empirically shown by Baysinger and Butler (1985). This is commonly accepted as a crucial instrument for democratic decision-making process in the firm. Hence, it is recommended that mixture of directors, such as insiders, outsiders and component of instrumental directors shows an appropriate board structures for most of the firms. However, Rashid et al. (2010) have found that in board composition the outsiders even might be directors have insignificant influence on performance of Bangladeshi firms. As this paper has also focused on the same country hence, this is a subject of great concern in the existing CG mechanism. There might be many underlying catalysts work behind this. However, the study quests to investigate the issue in the context of shipping industry.

Ko et al. (2016) investigated logistic and shipping industry in Hong Kong for the period of 2003–2014 and found improved status in good governance practices in financial disclosures and decision-making transparency. However, they also reported poor governance in the area of "role of stakeholders". Koufopoulos et al. (2010) have shown same findings about CEO duality that is when chairman act as CEO; can exert more pressure on management decision making process. The relationship between board composition and firm performance have failed to show any convincing results in favor of the argument that diverse board composition will improve firm profitability; Bhagat and Black (1999). Yeo (2012) investigated ownership structure of board of directors in shipping firms' consolidation strategies. He found institutional investors influence more in shipping firms' merger and acquisition (M&A) strategies than family ownership directors. Moreover, CG has important impact on firm merger and acquisition (M&A) decision to mitigate conflicts among inside and outside directors.

On the other hand, many researchers argue that a family-controlled firms are fundamentally sound than other diverse board firms (Filatotchev et al., 2005; Lee, 2006; Kang et al., 2018). Additionally, CEOs who have direct connection with the founding family in many aspects take better position to manipulate CG of the firms. Those firms managed by family members can be more efficient relative to other firms reported by Kang (1998), Lee (2006), Barontini and Caprio (2006). Syriopoulos and Tsatsaronis (2011) have shown that good governance practices can boost up firm's financial performance. Zabri et al. (2016) provided that board size has significant relationship with firm performance; however, board independence and firm performance failed to find out any significant relationship in the study of 100 listed Malaysian firms.

As top management execute corporate governance practices in the firms.In the process of top management characteristics of firms; Nelson (2004) showed interesting findings that there is no relationship of CEO age, tenure or compensation on changes of CG based on an unbalanced panel of 1721 firms' data from 1980 to 1995. The similar findings also supported by DeAngelo and Rice (1983), Jarrell and Poulsen (1987) and Linn and McConnell (1983) offer the evidence of zero or even positive return. Baysinger et al. (1991) investigated the effect of board and ownership structure on corporate R&D strategy. They confirmed that when inside directors' holds more equity stake and institutional investors have more equity in the firm has positive effect on R&D spending. Moreover, Similar findings also reported by Hill and Snell (1988) found a significant, positive relationship between the level of corporate R&D spending in 94 large research-intensive companies and the concentration of equity ownership among individual stockholders, suggesting that large stockholders can encourage corporate investment in R&D.

Corporate governance has been receiving increasing concentration from regulatory bodies and practitioners worldwide. In a challenging and international environment, corporations operate on rule-based systems rather than on relationship-based ones. This highlights the importance of CG and the relationship between the people who manage corporations (corporate insiders) and all others who invest resources in the corporation's (Giannakopoulou et al., 2016). Bangladesh shipping industry is still at its incubatory stage and mostly unorganized but awareness of the requirements of CG is increasing. However, when compared to those of the India, Pakistan, Sri Lanka, Thailand and Malaysia, CG in practice philosophy has remained relatively under-developed in Bangladesh yet, especially in maritime sector such as shipping and shipbuilding (Boubakri et al., 2004). Rashid et al. (2010) examined board composition and firm performance in Bangladesh. They found that the outside (independent) directors cannot add potential value to the firm's economic performance in Bangladesh based on observation of 274 Bangladeshi firms in their study. Therefore, this paper has a true focus on the CG, board practices and firm performance of the shipping industry in Bangladesh. In this aspect from Bangladesh, we have found less or no contribution in the literature of CG of shipping firms. Therefore, this paper will add value in the governance literature of the shipping firms in Bangladesh applying the process of perceptional and factual analysis. We strongly believe that perceptional analysis of top management will be the innovation of this paper and will open up new avenues among potential researches in the field of shipping firms' governance study.

3. Methodology

3.1. Methods of data collection

Data were collected from both primary and secondary sources of the sample firms. In this study primary data were collected with the help of a structured questionnaire from 24 shipping firms consisting of one government, fifteen private, and eight foreign operating in Bangladesh. In the questionnaire, the first section contains3 background questions and second section contains 24 statements about governance practices and finally 1open ended question were sent to the respondent. There were total 28 questions in the questionnaire regarding various aspects of the corporate governance practices of sample firms in the study. Secondary data were collected from respective firms' financial statements.

3.2. Sampling techniques

The convenient cluster sampling technique has been used to collect date from the 24 shipping companies. Firstly, we created clusters of the shipping companies based on ownership i.e. stated owned and private owned companies. The private owned shipping companies then further classified in to clusters-local private ownership and foreign private ownership. There is only one stated owned shipping company in Bangladesh that is Bangladesh Shipping Corporation (BSC) which was incorporated in the sample. Among the private owned companies, we used convenient sampling method and choose 15 local private ownership companies and 8 foreign private ownership companies operating business in Dhaka and Chittagong division of Bangladesh.

3.3. Variables and data

The variables for this study are listed to investigate the relationship among the variables of corporate governance, board practices and firm performance of Bangladeshi shipping firms.

Y_1: Return on Assets = Measured net profit/Total assets; (Earnings after tax/Total assets).

X_1: Board Size = No of directors.

X_2: Board Composition = As the percentage of board of directors (outside of the family) in the board.

X_3: Board leadership = A binary variable coded as "0" for those firms employing the separate board structure and "1" for those employing the joint structure (if chairman holds the position of MD/CEO).

X_4: Board meeting = No of board meeting in a year.

X_5: Board ownership = Dummy variable, taking the value of 1 in case the Board of Directors hold an equity stake of above 5%, or 0 otherwise.

X_6: Annual General Meeting (AGM) = A binary variable coded as "0" for those firms for conducting no AGM and "1" for those firms conducting AGM

X_7: Firm size (Log of total assets)

Moreover, a five-point likert scale start from "strongly disagree" to "strongly agree" was employed to measure the various constructs and variables in this study. As, in this study firm performance has been measured using return on asset, which is the widely accepted measure of a firm profitability (Alom, 2018b; Ahkam & Alom, 2019; Rasiah et al., 2014).

3.4. Hypotheses of the study

In this study we have developed hypotheses to test the direction of positive or negative effects of the variables of corporate governance practices and firm performance. Hence, we have developed hypotheses from two perspectives. The first perspective has spotlight on factual points of view and the perspective has focused on perceptional points of view. So, the hypotheses for factual analysis are presented below:

H1. Board ownership (i.e. more than 5% equity stake) has positive effect on firm performance.

H2. Board leadership (joint versus separate) has a direct positive effect on firm performance.

H3. Board composition (family centric versus diverse) has positive influence on firm performance.

H4. Board Size (small versus large board) has positive effect on firm performance.

H5. Firm size has direct positive effect on firm performance.

Furthermore, hypotheses for perceptional analysis also presented below:

H1. Board ownership (i.e., more than 5% equity stake) has positive effect on firm performance.

H2. Board leadership (joint versus separate) has a direct positive effect on firm performance.

H3. Board composition (family centric versus diverse) has positive influence on firm performance.

H4. Board Size (small versus large) has positive effect on firm performance.

H5. Firm size has direct positive effect on firm performance.

Two sets of hypotheses were developed to compare and contrast the findings about the insights of corporate governance practices in the context of Bangladeshi shipping firms and outcomes will help the policy makers to come up with good policy implications in this sector.

3.5. The model

In order to empirically test the corporate governance issues discussed earlier part of the study, we employ a pooled regression (POLS) approach, where the model under study is estimated by a panel data method (cross-sectional OLS). Pooled regression model is one type of model that has constant coefficients, referring to both intercepts and slopes. For this model researchers can pool all of the data and run an ordinary least squares regression model. In statistics and econometrics, the term panel data refers to two-dimensional data (Hsiao, 2005). Data is broadly classified according to the number of dimensions. The Pooled OLS is time constant attributes of individuals that are not correlated with the individual regressors. Pooled OLS can be used to derive unbiased and consistent estimates of parameters even when time constant attributes are present, but random effects will be more efficient. Hence, all the independent variables in this study are exogenously determined in the model.

The study follows the path of factual and perceptional base of data, as data were collected from primary and secondary sources. We have collected data from 24 sample firms in the corporate governance indicators and a survey was conducted on top level management perception about the corporate governance practices and different board activates and firm performance in the context of Bangladeshi shipping firms. The top level management is a self explanatory term, basically those managers who are involved with firms' managerial decision making activities for example: MD/CEO, COO, CFO, GM and HOD. Therefore, the study has focused on the analysis of descriptive statistics, Pearson correlation and POLS on both factual and perceptional data. Thus, POLS equations for factual and perceptional analysis are presented below:

$$ROA = \alpha_0 + \beta_1 BoardOwnership + \beta_2 BoardLeadership + \beta_3 BoardComposition + \beta_4 BoardSize + \beta_5 FirmSize + \varepsilon_{i,t} \quad (1)$$

$$ROA = \alpha_0 + \beta_1 BoardOwnership + \beta_2 BoardLeadership + \beta_3 BoardComposition + \beta_4 BoardSize + \beta_5 FirmSize + \varepsilon_{i,t} \quad (2)$$

4. Empirical results and discussions

The Table 1 is demonstrating awareness intensity of corporate governance in the Bangladeshi shipping firms at the top management level. Results are interesting and draw a meaningful insight regarding corporate governance status quo in Bangladesh. Findings show that 50% respondents from top level management are slightly aware about the governance issues, which is quite shocking and only 33% management are fully aware about the corporate governance. Finally, this study finds 17% of managers are not at all aware about corporate governance of the shipping firms in Bangladesh. Thus, these findings lead authors to investigate corporate governance and performance dynamics; in consequence will amplify awareness level about corporate governance among the shipping firms' managers.

Table 1 also shows that from survey data on 24 shipping firms in Bangladesh reveals that 57 percent firms chairman represent dual role. When the chairman plays role as the MD/CEO of the firms is supporting of stewardship theory of corporate governance. Therefore, based on findings it can be argued that in Bangladesh shipping industry most of firms depicts that CEO duality exists. This study help draw the interpretation that MD/CEO will manipulate major strategic decisions for self-interest, hence conflicts of interest might arise not only with the managers but also with other board members of the firms. As results CEO duality (we defined board leadership joint structure) will create conflicts in the firm that might not serve the best interest of the shareholders' wealth maximization goal.

This study has survey 24 shipping firms operating in Bangladesh. Typically, these firms categorize as medium and large size shipping firms in the context of Bangladesh. We have investigated the board practices to check the status of corporate governance in the Bangladeshi shipping industry. The findings from Table 1 surprise that in the 80 percent firms' board members occupied different management positions. This finding contradicts effective corporate governance practices in the firm level in the context of Bangladeshi shipping firms.

Annual general meeting (AGM) is one of the important indicators irrespective of public or private limited firms in the corporate governance mechanism. Table 1 also reveals the status of annual general meeting of 24 shipping firms. In this study we tried to explore about the AGM status that is whether the firms have conducted AGM in the last financial year. The finding reveals that in the sample 24 firms, 93 percent firms conducted AGM in the last financial year. However, 7 percent firms fail to conduct AGM in the last financial year. Therefore, this indicator exposes good examples of corporate governance practices in the shipping firms in Bangladesh.

The results of descriptive statistics of factual data are presented in Table 2. So, the results of descriptive statistics represent sample size, mean value, maximum and minimum and standard deviation of each variable with skewness and kurtosis. The underpinning of descriptive statistics is basically to check the distribution of data. ROA is the indicators of firms' profitability; in this study the sample firms' average profitability is 10.24 percent with a standard deviation of 2.53 percent. Among the sample firms' minimum profitability is 5 percent and maximum are 15 percent. The firms' size indicates value of total assets in log difference. Basically, in this study sample firms were mostly in small and medium size compare with developed countries shipping firms. The average firm size is 106.8 million BDT and maximum are 2500 million BDT; whereas, minimum is 65 million BDT and deviation from mean is 2.34 percent which indicates homogeneity of the sample firms. In case of board ownership descriptive statistics results show that in many shipping firms' board members holds equity stake more than 5 percent. The mean value indicates more than 57 percent directors hold equity stake more than 5 percent and maximum is 1, minimum value is 0. Most of the firms conducted AGM exceptions are few, where mean is 0.93. The sample firms on average conducted 5 board meetings each year with a maximum value of 17 meetings and minimum status is no meeting. Each firm has 6 persons as

Table 1
Corporate Governance Awareness among the Managers.

	Fully aware	Slightly aware	Not at all aware	Total
The managers' awareness of corporate governance in the shipping firms.	33%	50%	17%	100%
	Yes	No		
The chairman of the firm serves as the Managing Director/ CEO	57%	43%		100%
Other board members serve in different management positions	80%	20%		100%
Did the firm perform AGM in the last financial year?	93%	7%		100%
Number of observations(N)		24		

Table 2
Descriptive Statistics (Factual analysis).

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA	24	5.00	15.00	10.237	2.5322041	−.181	.427	−.648	.833
Firm Size	24	6.5	250	10.68	2.337	.630	.427	−.894	.833
Board Ownership	24	0	1	.57	.504	−.283	.427	−2.062	.833
AGM	24	0	1	.93	.254	−3.660	.427	12.207	.833
No of Board Meetings	24	0	17	5	3.854	1.681	.427	2.588	.833
Board Size	24	2	16	5.83	3.119	1.831	.427	3.928	.833
Board Composition	24	0	7	1.87	1.995	.782	.427	−.155	.833

board member on average, however the maximum board members are 16 and minimum board members are 2. The variables of board composition refer that average 2 board members represent from same family and in some cases, it is 7 board members belong to same family.

Table 3 depicts results of management perception on five variables that measure board characteristics. As, the management are working directly with board, thus, their perception is treated very significant input to improve the corporate governance scenario in the context of Bangladeshi shipping firms. The first variable is board size, which can be seen from the results of descriptive statistics that is on average management express neutral view. They have differencing opinion in favor and disfavor of small and large board size and its impact on corporate governance as well as firm performance. The second variable is board composition which mainly argues family controlled versus diverse board practice. So, management perception of family control versus diverse board is again neutral, started minimum disagree to maximum agree value is 4.75 in their opinion. The board leadership points to the board chairman; whether the chairman is serving as the CEO/MD of the firm. If the chairman serves as the CEO/MD of the firm CEO duality exists and vice versa. This study attempts to investigate management perception in favor or disfavor of CEO duality. The results show neutral views of management with average value of 3.55. The values of minimum to maximum stands disagree to agree that is 2.00–4.50. The board ownership means whether board members hold equity stake more than 5 percent or not. The results show neutral view with lower value that is 3.13 and the range of minimum to maximum lies strongly disagree to strongly agree. The firm size descriptive values we describe earlier.

Table 4 demonstrates results of Pearson correlation among the dependent and independent variables in this study. The findings divulge that of firm profitability has positive correlation with firm size, AGM, board composition, board size and numbers of board meetings. This finding is plausible in a fair sense that large firm can influx profitability, when a firm conducts AGM on regular basis that has positive effect on firm's performance. Conversely, board ownership and firm profitability has negative correlation but not significant. When few board members hold more equity stake in the firm; they influence on management decision that will hinder firm performance and smooth business operation.

However, AGM has positive correlation with all the variables but insignificant except board ownership which is 0.306. Board members and number of board meetings correlation is positive and significant. It indicates when a firm has more board members; they influence management to sit for more board meetings. Therefore, this strategy works in favor of good corporate governance practices in the context of shipping industry in Bangladesh. Numbers of board meetings shows positive correlation with shipping firms' profitability.

Table 5 presents correlation results of perceptional survey on corporate governance of the managers of different shipping firms. So, in this research we aim to explore the similarity and deviation between shipping firms' factual and perceptional results of corporate governance. Firm's profitability has negative correlation with board size and board ownership but not significant. This is management perception contradicts with factual findings, as managers have long working experiences with board members that reflected in the results. When a board member holds more equity stake that influence managers decisions as a result the firm perform negatively. However, board leadership has positive and significant impact on firms' performance. However, firm size, board composition and board leadership have positive correlation with firm performance in this study.

In this study our main focus was on corporate governance, board practices and firm's performance in the context of Bangladeshi shipping firms. Results of regression demonstrate in Table 6 are quite interesting have significant policy implications in the context of Bangladeshi shipping firm's governance and performance. Board ownership has 10 percent level significant positive impact on firm performance. Though the negative coefficient implies that board members have less equity stake can converge better performance of the firms. When a few board members hold more equity stake that play asymmetric power game in the firm decision making. This asymmetric power game will influence managers to take biased decisions then practices of governance will face challenges, as other stakeholders' interest will be violated. The board leadership has 5 percent level significance relationship on firm performance. The positive coefficient indicates separate board structure ensure better firm performance. The regression results also show that board size has 5 percent level significant impact on firm performance with positive coefficient. This finding explain if a firm formed with more board members it enhance firm's efficiency in many aspects such as power exchange, value addition in different chairman regime as a part of internal board leadership competition and finally move

Table 3
Descriptive Statistics (Perceptional analysis).

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA	24	5.0000	15.0000	10.2366	2.5322041	−.181	.427	−.648	.833
Board Size	24	2.75	4.50	3.4333	.44978	.810	.427	−.228	.833
Board Composition	24	2.50	4.75	3.3667	.48572	.704	.427	.982	.833
Board Leadership	24	2.00	4.50	3.5500	.52686	−.732	.427	1.556	.833
Board Ownership	24	1.50	5.00	3.1333	.70629	.277	.427	1.144	.833
Firm Size	24	6.5	250	10.68	2.337	.630	.427	−.894	.833

Table 4
Pearson Correlation (Factual analysis).

		ROA	Firm Size	Board Ownership	AGM	Board Composition	Board Size	No of Board Meetings
ROA	Pearson Correlation	1	.160	−.033	.079	.125	.216	.075
	Sig.		.466	.431	.339	.256	.125	.346
	N	24	24	24	24	24	24	24
Firm Size	Pearson Correlation	.016	1	−.154	.072	−.068	.025	−.167
	Sig. (1-tailed)	.466		.209	.353	.360	.448	.189
	N	24	24	24	24	24	24	24
Board Ownership	Pearson Correlation	−.033	−.154	1	.306	−.059	−.355*	−.254
	Sig.	.431	.209		.050	.378	.027	.088
	N	24	24	24	24	24	24	24
AGM	Pearson Correlation	.079	.072	.306	1	.050	.029	.205
	Sig.	.339	.353	.050		.397	.439	.139
	N	24	24	24	24	24	24	24
Board Composition	Pearson Correlation	.125	−.068	−.059	.050	1	.013	.021
	Sig.	.256	.360	.378	.397		.473	.457
	N	24	24	24	24	24	24	24
Board Size	Pearson Correlation	.216	.025	−.355*	.029	.013	1	.673**
	Sig.	.125	.448	.027	.439	.473		.000
	N	24	24	24	24	24	24	24
No of Board Meetings	Pearson Correlation	.075	−.167	−.254	.205	.021	.673**	1
	Sig.	.346	.189	.088	.139	.457	.000	
	N	24	24	24	24	24	24	24

* Correlation is significant at the 0.05 level.

Table 5
Pearson Correlation (perceptional analysis).

		ROA	Board Size	Board Composition	Board Leadership	Board Ownership	Firm Size
ROA	Pearson Correlation	1	−.010	.074	.184	−.026	.016
	Sig.		.959	.699	.330	.892	.932
	N	24	24	24	24	24	24
Board Size	Pearson Correlation	−.010	1	.441*	.333	.246	−.042
	Sig.	.959		.015	.072	.190	.825
	N	24	24	24	24	24	24
Board Composition	Pearson Correlation	.074	.441*	1	.448*	.456*	.345
	Sig.	.699	.015		.013	.011	.062
	N	24	24	24	24	24	24
Board Leadership	Pearson Correlation	.184	.333	.448*	1	.259	.244
	Sig.	.330	.072	.013		.166	.194
	N	24	24	24	24	24	24
Board Ownership	Pearson Correlation	−.026	.246	.456*	.259	1	.062
	Sig.	.892	.190	.011	.166		.743
	N	24	24	24	24	24	24
Firm Size	Pearson Correlation	.016	−.042	.345	.244	.062	1
	Sig.	.932	.825	.062	.194	.743	
	N	24	24	24	24	24	24

* Correlation is significant at the 0.05 level.

Table 6
Regression Results (Factual analysis, ROA as dependent variable).

Independent Variables	Standardized Regression coefficient	*t-value*	*p-value*
Board ownership	−0.150	2.340	0.051
Board leadership	0.140	3.517	0.039
Board Composition	0.124	0.743	0.187
Board Size	0.328	2.182	0.013
Firm Size	0.371	2.754	0.007
Constant	--------	4.690	0.000
Sample Size = 24			
Adjusted R^2 = 0.539			

Table 7
Regression Results (Perceptional analysis, ROA as dependent variable).

Independent Variables	Standardized Regression coefficient	*t-value*	*p-value*
Board ownership	−.097	0−.431	0.670
Board Leadership	.226	3.990	0.012
Board Composition	.101	0.373	0.712
Board Size	−.110	0.656	0.638
Firm Size	−.105	0.475	0.639
Constant	--------	1.778	0.088
Sample Size = 24			
Adjusted R^2 = 0.647			

towards better governance to ensure transparency, transformation and firm performance.

Moreover, firm size indicates large firms have more profit grab opportunity through better governance practices. Result also support that firm size has significant relationship with profitability of firms. The coefficient is positive and moderately strong which help us to draw conclusion that large firm can clutch more profit and large firm ensure better governance practices. However, board composition has no significant relation with profitability of firms. Therefore, results of regression according to hypothesis are as follows.

H1. Board Ownership (i.e., more than 5% equity stake) has positive effect on firm performance. (Accepted)

H2. Board Leadership (separate versus joint structure) has a direct positive effect on firm performance. (Accepted)

H3. Board Composition (family centric versus diverse) has positive influence on firm performance. (Rejected)

H4. Board Size (small versus large) has positive impact on firm performance. (Accepted)

H5. Firm Size has direct positive effect on firm performance. (Accepted) (Table 7)

In this study we have conducted second regression based on data collected five-point likert scale presented in the table 7. The regression data were collected from top management perception on corporate governance practices of shipping firms in Bangladesh. The results of perceptional analysis are quite interesting and lead us to compare and contrast findings with factual analysis results. The results of perception regression analysis show that firm size has no significant impact on firm performance. This finding deviates from factual analysis as there we found firm size has significant impact on firm performance. However, top management of shipping firms has perception that firm size has no impact on firm performance. The board size that is small versus large board has no influence on firm performance. The literature of corporate governance always has supported of large board to ensure good governance practices in the firm. The factual analysis also in favor of board size effect on firm performance, nonetheless, the management of Bangladeshi shipping firms has negative perception in favor of that argument. Therefore, findings are consistent with the descriptive analysis postulated in Table 1 that is level of awareness of management regarding shipping firms' corporate governance.

The board composition and board ownership also confirm insignificant relation with firm performance and it is consistent with the factual findings. Board composition indicates whether members are from same family or diverse background. Pragmatically when a board is family controlled, it will create obstacle to application of corporate governance. Family controlled board will exert power in the firm's decisions; thus, it might affect the firm performance negatively. On the other hand, board ownership is defined whether any of the board members has more than 5% equity stake or not. If any members hold equity stake more than 5%, that member can control firm decision which might not work for the sake of firms' interest rather focus on personal interest. Hence, this situation will affect firm performance negatively in the short run and long run. The power strike balance is important amid the board members for better governance of the firm.

Finally, the perception regression results confirm significant that board leadership and firm performance are significant at 5% percent level. These findings surprise us utterly compare with other findings in the perceptional analysis. From the perceptional analysis we find all the variables are insignificant with firm performance except leadership. The managers of the sample firms were not much aware about other indicators of corporate governance; however, demonstrate their experiences and responsiveness about the board leadership. The managers have strong believed that board leadership has significant influence on firm performance. This finding is quite rationale in a fair sense that if a shipping firm operate with strong leadership skills must have reflection on the firm profitability. As the top managers have experiences to directly work with board leaders for different strategic plan and decisions. As, perception regression results confirm that overall application of corporate governance is poor in Bangladeshi shipping firms; hence we can argue both decision control and decision management are managed by the board members. The results of perceptional hypotheses are presented below.

H1. Board Ownership (i.e., more than 5% equity stake) has positive effect on firm performance. (Rejected)

H2. Board Leadership (separate versus joint structure) has a direct positive effect on firm performance. (Accepted)

H3. Board Composition (family centric versus diverse) has positive influence on firm performance. (Rejected)

H4. Board Size (small versus large) has positive impact on firm performance. (Rejected)

H5. Firm Size has direct positive effect on firm performance. (Rejected)

5. Conclusion and policy implications

The prime objective of this study is to investigate the relationship corporate governance, board practices and firm performance in the context of Bangladeshi shipping firms. According to that, the study was designed to investigate relationship based on factual data and management perceptional data. The study has highlighted top-level managers of shipping firms as they are decision makers as well as will ensure practices of firms' governance. The results of descriptive statistics show that most of the firms' managements are not attentive about the awareness of corporate governance practices. This study finds existence of CEO duality, and other board members' active participation in different management positions in Bangladeshi shipping firms. Therefore, results confirm continuation of less corporate governance practices and carrying less transparency in board practices. This study also conducted a regression analysis to examine relationship dynamics among corporate governance, board practices and firm performance. The results show that all the explanatory variables in this study have significant effects on firms' performance except board composition. The results of perceptional regression analysis show that board ownership, board size, board composition and firm size have insignificant relationship with firm performance. These results show complete perplexity in many aspects about the corporate governance awareness level among top managers of shipping firms'. Hence, regression findings are consistent with the descriptive statistics results of different variables in this study. However, the study finds positive and significant relationship of board leadership and firm performance. Management believes that board leadership obviously enhances firm performance with positive coefficient.

Therefore, the policy makers in the shipping firms should have more focus on corporate governance practices to ensure transparency in board practices to boost up firm's profitability. The different stakeholders have involvement and responsibilities to make certain of shipping firms' corporate governance practices. The regulatory body (i.e. the government) should check the present status of corporate governance practices level in shipping industry in Bangladesh and take some policy level revision through proper policy formulation and implications. As, the results show that only 33% management are aware about maritime governance that means till date 67% of shipping firms management are not aware about the governance practices and its impact on firm performance.

Then government should impose some restrictions on board practices such as, this study finds more than 57% of firms board chairman are holding the position of MD/CEO of the firms. This result pointed toward a gross violation of good governance practice in the board due to decisions biased by the chairman. So, government should intervene through policy formulation like corporate governance of banking sector in Bangladesh (i.e., separate board leadership structure).It has also been found that others board members holding different managerial positions in the firm which are not compatible with good governance practices.

Finally, board members should formulate governance policies within firm to augment firm's profitability. In most of the firms, board members' follow power-based culture providing less scope for professional managers to apply their talent and skills. The strategic planning and decision-making process should be transparent and fair among the board and managers in the firms. As, managers are treated as experts in the firm but when they fail to play in their own strategy due to excessive power exercise of board, definitely it will have negative impact on firm performance. In Bangladesh most of the shipping firms are suffering from this power imbalance and hence, firm growth and industry growth are not at the expected level. Though, Bangladesh has tremendous scope and potentiality to boost up the growth level of shipping firms; if firms follow findings from factual and perceptional data of this study.

Conflict of interest statement

This is to inform you that I am Khairul Alom as the corresponding author of this paper hereby declare on behalf of both authors that this paper have no conflict of interest with any persons or institutions.

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Appendix.

Table 8
Classifications of Shipping Company in Bangladesh.

Nature of company	Number of companies	Name of Company
State owned	1	Bangladesh Shipping Corporation
Private (Local ownership)	1	SR Shipping
	2	Akij Shipping Lines Limited
	3	Symphony Ship Management Limited
	4	Crown Navigation Company Limited
	5	Omera Shipping And Ligistics
	6	Continental Shipping Pvt. Limited
	7	Bashundhara Logistics Limited
	8	United Shipping Lines Limited
	9	Marin Trust Limited
	10	Mercantile Marine Department
	11	Angel Shipping Limited
	12	Sea Venture Overseas Shipping Lines Limited.
	13	Allseas Shipping Limited
	14	Aquamarine Limited
	15	Brave Royal Ship Management Limited
Private (Foreign ownership)	1	Maersk Sealand, Bangladesh
	2	K" Line Bangladesh Limited
	3	CMA CGM Shipping Limited, Bangladesh.
	4	COSCO Shipping Lines Bangladesh
	5	Hapag-Lloyd-Bangladesh
	6	East Coast Shipping, Bangladesh.
	7	Atlas Shipping Lines Limited, Bangladesh
	8	Pacific International lines (PIL), Bangladesh

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