

# BOARD DIVERSITY AND CORPORATE VOLUNTARY DISCLOSURE (CVD) IN THE ANNUAL REPORTS OF BANGLADESH

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## Abstract

This is an exploratory study designed to investigate the extant and nature of corporate voluntary disclosure (CVD) in corporate annual reports of Bangladesh. Specifically, examine the relationship between board diversity and corporate voluntary disclosures. The paper is based on a sample of 106 listed non-financial companies in Dhaka Stock Exchanges (DSE) from the period 2007-2011 and all the companies are selected by Judgment Sampling. The study is used ordinary least squares regression model to examine the relationship between explanatory variables and voluntary disclosure. Using an unweighted relative disclosure index for measuring voluntary disclosure, the empirical results indicate that Percentage Female Director (PFD), Board Leadership Structure (BLS) and Total Assets (TA) are positively association with corporate voluntary disclosure (CVD). In contrast, the extent of corporate voluntary disclosure is negatively associated with a Percentage of equity owned by the insiders to all equity of the firm higher management ownership.

**Keywords:** Female Director, DSE, CVD, Non-Financial Companies

## 1. INTRODUCTION

The board of directors is an important mechanism in the financial reporting of modern firms.

Many studies focus on corporate governance and its features in different countries (Aktaruddin and Rouf, 2012; Rouf and Harun, 2011; Rouf, 2011). In recent, the topic of board diversity has been thoroughly analyzed. According to Van der Walt and Ingley (2003), board diversity refers to the variety in the composition of the board of directors. Within this definition, there are two categories of board diversity, namely, demographic diversity and cognitive diversity. Demographic diversity relates to the observable or readily detectable attributes of directors that includes race or ethnicity, nationality and gender, whereas, cognitive diversity relates to the unobservable or less visible attributes of directors, such as educational, functional and occupational backgrounds, industry experience, and organizational membership (Milliken & Martin 1996).

Board diversity research has evolved into a challenging research issue in academia for the most recent decades. Most of this investigate has commenced from the fact that there are increasing numbers of women in top management as well as on corporate boards (Singh et al., 2001). Related to the above is confirmation from prior literature on the existence of differences between men and women regarding decision-making, risk taking, managing, leading, communicating and general performance in business enterprises (Rose, 2007; Peterson and Philpot, 2007; Walt and Ingley, 2003; Burke, 1999; Chell and Baines, 1998). Board diversity literature

emphasizes that diversity may benefit the board's decision making process as new perceptions on various issues are presented and combined with a mutual exchange of ideas stemming from board members with dispersed backgrounds and experience (Rouf, 2015). It is also argued that diversity leads to a greater knowledge base, creativity and innovation, and therefore becoming a competitive advantage (Watson et al., 1993). It is from this background that, prior research has concluded an influence of board diversity on a number of corporate issues like firm performance and corporate governance.

To investigate the study objective, the study uses a sample of 106 companies listed on the Dhaka Stock Exchange during the fiscal year 2007-2011. In this study board diversity as measured by female director, Independent non-executive directors, Board leadership structure, Board size and Ownership structure.

## 2. OBJECTIVES OF THIS STUDY

The aim of this study is to examine the factors that influence companies to disclose corporate voluntary information in their annual reports. The specific objectives of the study are:

(a) to measure the level of corporate voluntary disclosure made by the companies in Bangladesh.

(b) to examine the association between board diversity and corporate voluntary disclosure level of listed companies in Bangladesh.

### 3. LITERATURE REVIEW AND HYPOTHESES DEVELOP

#### 3.1. Female Directors

A board of directors is a body of elected or appointed members who jointly oversee the activities of a company or organization. A board is generally composed of inside and outside members. Inside members are selected from among the executive officers of a firm. Outside directors are members whose only affiliation with the firm is their directorship. Board diversity is namely, demographic diversity and cognitive diversity. Demographic diversity For the purpose of this study, one important dimension of board diversity is examined; namely gender diversity. This dimension is chosen because of their benefits offered to firms. For examples, a female director may bring not only different perspectives, valuable skill and knowledge to share, but also share different values, norms and understanding, which may consequently increase the quality of strategic decision making and promote better governance in firms (Ruigrok et al. 2007). According to Rouf, M. A. (2015) found that boards with a larger proportion of female directors are significantly and positively associated with higher levels of voluntary disclosure in Bangladesh. In this view, it is argued that a firm may have higher level of disclosure if the boards consist of more female directors. These observations suggest the following hypothesis:

*H<sub>1</sub>: A higher proportion of female directors on a board are positively related to the level of corporate voluntary disclosure.*

#### 3.2. Independent Directors

A board is generally composed of inside and outside members. Inside members are selected from among the executive officers of a firm. They either belong to the management group or are the family that owns the firm. Outside directors are members whose only affiliation with the firm is their directorship.

Patelli, L., and A. Prencipe (2007) reported that composition of the board is one of several factors that can mitigate agency conflicts within the firm. Akhtaruddin and Rouf (2012) argument is that independent directors are needed on the boards to monitor and control the actions of executive directors who may engage in opportunistic behavior and also to ensure that managers are working in the best interest of the principal. Cheng and Courtenay (2006) found that boards with a larger proportion of independent directors are significantly and positively associated with higher levels of voluntary disclosure in Singapore. In addition, Chen and Jaggi (2002) examined the association between independent directors and corporate disclosure. They found a positive relationship between a board with a higher proportion of independent directors and comprehensive financial disclosure.

Haniffa and Cooke (2002) argue that an independent board serves as an important check and balance mechanism in enhancing boards' effectiveness. Support for these assertions is further provided by Akhtaruddin and Rouf(2012); Simon and Kar (2001); Rouf (2011) and Eng and Mak (2003). Ho and Wong (2001) do not find association between

the proportion of outside non-executive directors and the extent of voluntary disclosure. Aktaruddin, M. et al.(2009) and Obeua S Persons (2009)find that firms can expect more voluntary disclosure with the inclusion of a larger number of independent non-executive directors on the board. A firm may have higher level of disclosure if the boards consist of more outside directors. These observations suggest the following hypothesis:

*H<sub>2</sub>: A higher proportion of independent directors on a board is positively related to the level of corporate voluntary disclosure.*

#### 3.3. Board Leadership Structure

Within the context of corporate governance, the central issue often discussed is whether the chair of the board of directors and CEO positions should be held by different persons (dual leadership structure) or by one person (unitary leadership structure). According to agency theory, the combined functions (unitary leadership structure) can significantly impair the boards' most important function of monitoring, disciplining and compensating senior managers. It also enables the CEO to engage in opportunistic behavior, because of his/her dominance over the board. Rouf (2011), Aktaruddin and Rouf(2012) finds that firms can expect more voluntary disclosure with the dual leadership structure. Forker (1992) empirically studied the relationship between corporate governance and disclosure quality, and presented evidence of a negative relationship between disclosure quality and 'dominant personality' (measured as CEO and board chair combined). Hence, to the extent that the combined chair/CEO positions "signals the absence of separation of decision management and decision control" (Barako, D.G. et al. (2006) , the following hypothesis is examined:

*H<sub>3</sub>:The extent of corporate voluntary disclosure is positively related for firms with a dual leadership structure.*

#### 3.4. Board Size

Board size may influence the level of voluntary disclosure. The level of disclosure is a strategic decision made of the board of directors. As a top-level management body, the board of directors formulates policies and strategies to be followed by managers. It has been argued that a greater number of directors on the board may reduce the likelihood of information asymmetry (Chen and Jaggi, 2000; Rouf, 2011). Research emphasizes the importance of strategic information and resources in a highly uncertain environment. The size of the board is believed to affect the ability of the board to monitor and evaluate management and small board encourages faster information processing (Zahra, et al., 2000). Aktaruddin, M. et al., (2009) finding of their study is a positive association between board size and level of corporate voluntary disclosure. Further, the ability of directors to control and promote value-creating activities is more likely to increase with the increase of directors on the board. With more directors, the collective experience and expertise of the board will increase, and therefore,

the need for information disclosure will be higher. The following hypothesis is examined:

*H<sub>4</sub>: The number of directors on a board is positively related to the level of corporate voluntary disclosure.*

### 3.5. Ownership Structure

Ownership structure is another mechanism that aligns the interest of shareholders and managers (Akhtaruddin, M. et al.2009; Wang, K. et al., 2008; Rouf and Harun,2011; Haniffa and Cooke, 2002; Chau and Gray, 2002). The agency theory suggests that where there is a separation of ownership and control of a firm, the potential for agency costs arises because of conflicts of interest between contracting parties. It is believed that agency problems will be higher in the widely held companies because of the diverse interests between contracting parties. By utilizing voluntary disclosure, managers provide more information to signal that they work in the best interests of shareholders.

In this study, ownership structure is proxied by management ownership. Using agency theory, it is argued that firms with higher management of ownership structure may disclose less information to shareholders through voluntary disclosure. It is because the determined ownership structure provides firms lower incentives to voluntarily disclose information to meet the needs of non-dispersed shareholders groups. In Australia, McKinnon and Dalimunthe (2009) note that companies with a single ownership structure disclose more voluntary information. Rouf and Harun (2011) suggested a negative association between management ownership structure and the level of voluntary disclosure by Bangladeshi listed firms. Akhtaruddin, M. et al.(2009) find that a higher proportion of outside share ownership is positively related to the level of voluntary disclosure. In addition, Hongxia, Li & Ainian, Qi (2008) shown that higher managerial ownership have high level of voluntary disclosures. Eng and Mark (2003) reported that lower management ownership and significant government ownership are associated with higher disclosure among listed firms in Singapore. Haniffa and Cooke (2002) indicate that the extent of family control in a firm is negatively associated with the amount of voluntary disclosure. Their evidence suggests that family controlled firms do not require additional information because the owner managers could access the information easily, thus leading to low agency costs and low information irregularity. The management entrenchment hypothesis could also explain the negative association and its effects could negate the positive effects of the agency cost explanations. The significant role of management ownership in influencing voluntary disclosures practices of firms from the prior researcher. So it is expected that ownership structure will influence the voluntary disclosure information. The hypothesis is formally stated as:

*H<sub>5</sub>: The extent of corporate voluntary disclosures is negatively associated with a higher management ownership.*

### 3.6. Firm Size

Most of these studies found that size of the firm does affect the level of disclosure of companies.

Hossain, M. & Hammani, H.(2009); Jilnaught & Norman(2009); Hossain & Mitra(2004); Akhtaruddin and Rouf(2012); Barako et al.(2006) investigated that the larger the firm, the more likely they will make voluntary disclosures. Based on the study done world wide, for example (Aripin, N., et al.,2008;Watson et al., 2002; Da-Silva & Christensen, 2004; Wallace et al.,1994; Samir, M. et al.,2003; Ho and Wong, 2001); they suggested the underlying reasons why larger firms disclose more information. In this study, total sales and total assets will be used as the measures of company size. The following specific hypotheses have been tested regarding size of the firm:

*H<sub>6</sub>: The extent of corporate voluntary disclosures is positively associated with the total assets.*

*H<sub>7</sub>: The extent of corporate voluntary disclosures is positively associated with the total sales.*

## 4. DESIGN OF THE RESEARCH STUDY

### 4.1. Framework

Considering all factors of the independents and dependent variables, the model of the study is depicted the following section-4.2

### 4.2. Measurement

Dependant variable	Definition	Measurement
TVDE	Total Voluntary Discloser score	Total number of points awarded for voluntary discloser, i.e strategic, non-financial and financial information (coding one "1" if the company disclose and Zero "0" otherwise)
Independent variables	Definition	Measurement
PFD	Female Director	Percentage of female directors to the total directors on board a firm.
IND	Independent director	Percentage of independent directors to the total directors on board a firm.
BLS	Board Leadership Structure	1 for dual or 0 non-dual
BSZE	Board Size	Total Number of member on each board
OS	Ownership structure	Percentage of equity owned by the insiders to an all equity firm.
TA	Total Assets	The value of the total assets of a firm
TS	Total Sales	The value of the total sales turnover of a firm

### 4.3. Sample Selection and Data Collection

At the end of 2011, 270 companies are listed on Dhaka Stock Exchange (DSE). Sample is taken from annual reports of listed companies on Dhaka Stock Exchange (DSE) and all the companies are selected by Judgment Sampling. The criteria for selecting the sample firms are: (i) the Company must be a firm (Non-financial Company), (ii) annual reports must be available on the Dhaka Stock Exchange and (iii) the firm must have been listed for the entire period of the study from 2007 to 2011. The total 106 companies are fulfilled the above three criteria. The companies are mainly classified into two categories, Financial and Non-financial. Out of 270 companies, 150 companies are Non-financial and the others are Financial. Among the 150 Non-financial companies, annual report of 44 companies is not available on DSE from the period of 2007 to 2011. The selected companies listed on the DSE which fulfilled the judgment criteria are classified as cement & ceramics, engineering, food & allied, fuel & power, pharmaceuticals & chemicals, textile, tannery, Jute and miscellaneous. The annual reports of the sample companies are collected from the DSE seminal library. Firm-specific characteristics and Corporate-governance attributes is collected from the annual reports of listed companies on DSE. According to the classification of the Non-financial companies the distribution of the sample companies are given in Table 1.

**Table 1.** Distribution of sample by industry types

Industry Types	Population		Sample	
	Number	%	Number	%
Cement & Ceramics	12	8.00	9	8.49
Engineering	25	16.67	18	16.98
Food & Allied	18	12.00	12	11.32
Fuel & power	15	10.00	11	10.38
Pharmaceuticals & Chemicals	25	16.67	16	15.09
Textile	32	21.33	21	19.81
Tannery	5	3.33	5	4.72
Jute	3	2.00	3	2.83
Miscellaneous	15	10.00	11	10.38
Total	150	100.00	106	100.00

Sources: Dhaka Stock Exchanges Library

### 4.4. The Selection of Index- Weighted vs. Un-Weighted

Cooke (1989) mentions that there are two methods for determining the index of level of corporate disclosure namely, weighted and unweighted. This is mainly because of the fact that not all the items mentioned in different disclosures are equally important. The relative importances of different items are different to different users. The unweighted method treats all the discloseable items are equally important (Akhtaruddin, 2005). Moreover, Rouf (2011) finds that all disclosure items are equally important to average users. Although there are different levels of users of disclosure items, the market trying to cope with the changing world should consider all the mandatory items equally. If there is no provision in relevant laws regarding the relative importance, segregating is not possible. The prior experiences of weighted approach Akhtaruddin (2005) states that weighted

approach has, in fact, encountered several problems pointing out that unweighted approach also has some limitations such as giving nil score for an item to company which is not applicable for that company. However, the unweighted approach has got superiority supported by the research works done by Owusu-Ansah (1998) Wallace and Naser (1995). That is why this research is also carried out by unweighted index and this is here after known as VDI (Voluntary Disclosure Index)

### 4.5. Development of a Corporate Voluntary Disclosure Index

Previous research has examined the disclosure behavior of firms using a disclosure checklist. The disclosure checklist developed by Meek, Roberts and Gray (1995) was used to examine the voluntary disclosure of firms in developed countries. Chau and Gray (2002), and Ho and Wong (2001) have also used this disclosure checklist with some modifications to examine the voluntary disclosure of Hong Kong and Singapore firms. The level of voluntary disclosure of the sample firms in this study was measured using a disclosure index that was developed in consultation with the disclosure checklist used by Akhtaruddin, M. (2009), Chau and Gray (2002), Akhtaruddin and Rouf(2012), and Rouf and Harun (2011).

A total of 91 items were identified in compliance with voluntary disclosure items provided by listed firms in Bangladesh. These items were then compared with listing requirements for Dhaka stock exchange (DSE) and a mandatory disclosure checklist prepared by Akhtaruddin, M. (2005) in Bangladesh. Since the focus of this research is voluntary disclosures, the preliminary list of 91 items was subjected to a through selection to eliminate those that are mandated. This list was sent to various experts (professor, professional chartered accounted & Cost and Management accounted etc.) for selection and as a result of their feedback, the initial list of 91 items was reduced to 68 items. The disclosure items are classified into thirteen categories: general corporate information, corporate strategic information, corporate governance information, financial information, financial review information, foreign currency information, segmental information, employee information, research & development information, future forecast information, share price information, social responsibility information and graphical information.(A list of the final 68 items is included in Appendix-1)

I employed an unweighted approach for this study. This approach is most appropriate when no importance is given to any specific user-groups (Rouf et al.,2014; Akhtaruddin, M. et al., 2009; Hossain, M. and Hammami, H., 2009). The items of information are numerically scored on a dichotomous basis. According to the unweighted disclosure approach, a firm is scored "1" for an item disclosed in the annual report and "0" if it is not disclosed. The total voluntary disclosure index (TVDX) is then computed for each sample firm as a ratio of the total disclosure score to the maximum possible disclosure by the firm. The disclosure index for each firm is then expressed as a percentage.

One potential problem with this approach is that a firm may be penalized for not disclosing an

item of information although there is no information to disclose on it. In order to overcome this problem, an information item was coded as “not applicable” when no similar information could be found in any part of the annual report. For firms having not applicable items, the use of a relative index is suggested (Owusu-Ansah, 1998).

The relative index approach is the ratio of what a firm actually disclosed to what the firm is expected to disclose (for example, if the maximum possible disclosure score for a firm is 64 and the firm did disclose 48 out of the 64 items in the annual report, then the TVDX is = 48/64 = 0.75). This approach has been used in several prior studies (Rouf and Harun, 2011; Ho and Wong, 2001; Chau and Gray, 2002; Akhtaruddin, M., et al. 2009). Typically the extent of voluntary disclosure depends largely on the items of information included in the disclosure checklist. Selection of information items is thus a very critical factor in the measurement of corporate disclosure. A disclosure checklist incorporates significant items of information that managers are expected to provide in corporate annual reports (CARs) in order to satisfy the information needs of different user-groups (Ho and Wong, 2001; Chau and Gray, 2002). The employment of the disclosure index approach is therefore considered effective to capture voluntary disclosures by the sample firms.

#### 4.6. Model Specification and Multiple Regression

The multiple regression method is used to examine the relationship between Firm-Specific Characteristics and Corporate Governance with the Voluntary disclosure in annual reports of Bangladesh.

The result of regression analysis is an equation that represents the best prediction of a dependent variable from several independent variables.

This method is used when independent variables are correlated with one another and with the dependent variable.

The following regression equation is estimated as follow:

$$TCVD_{i,j,t} = \sum_{i=1}^{N_{ij}} X_{ij}$$

Where,

TCVD = total corporate voluntary disclosure score for  $j^{th}$  firm at the time  $t$ ,

$N_{ij}$  =  $i^{th}$  item for  $j^{th}$  firm  
 $t$  = year

$$TCVD = a + \beta_1 PFD + \beta_2 PIND + \beta_3 BLS + \beta_4 BSZE - \beta_5 PEOI + \beta_6 TA + \beta_7 TS + \varepsilon$$

Expected sign (+) (+) (+) (+) (-) (+) (+)

TCVD = Total corporate voluntary disclosure score received from each company

PFD = Percentage of female directors to directors on board.

PIND = Percentage of independent non-executive directors to directors on board.

BLS = Board leadership structure, 1 for dual or 0 non-dual

BSZE = Total number of member on each board.

PEOI = Percentage of equity owned by the insiders to all equity of the firm.

A = total constant, and  $\varepsilon$  = the error term

In this model, all independent variables enter the regression equation at once to examine the relation between the whole set of predictors and the dependent variable.

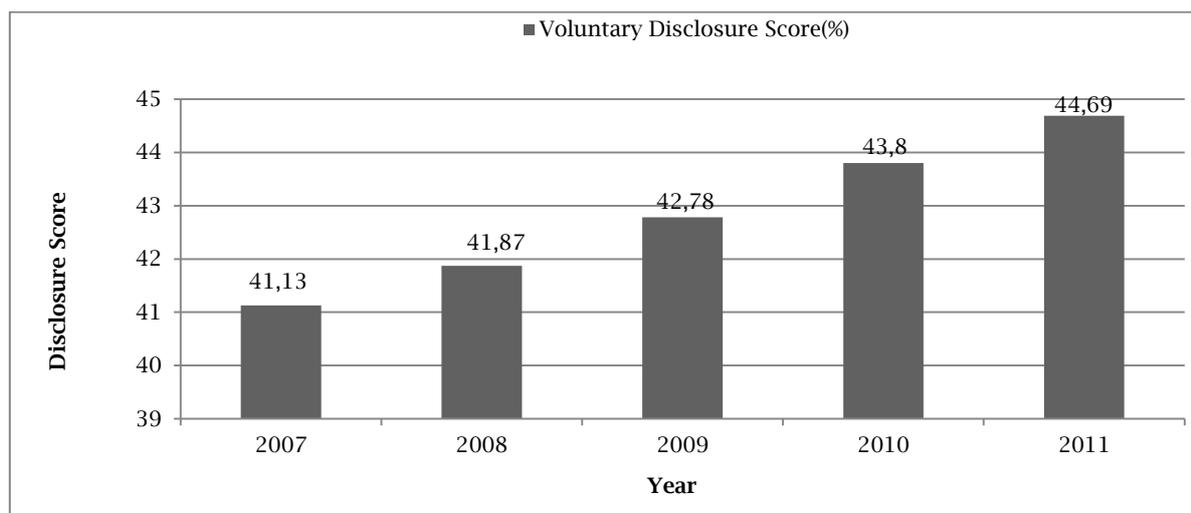
#### 7.1. Descriptive Statistics

Table 3. Descriptive Statistics for Independent Variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
VD	106	18.24	72.35	42.8530	13.94820
PFD	106	0.00	56.00	12.7643	14.74514
IND	106	0.00	20.00	10.5666	6.17946
BLS	106	0.00	1.00	0.66	0.45
BSZE	106	4.00	13.00	7.36	1.67
PEOI	106	8.00	86.00	40.87	17.91
TA	106	32.74	590787.60	35858.58	96828.14
TS	106	19.78	1056253.30	31075.36	125927.34

Table 3: presents descriptive statistics for the sample firms from 2007 to 2011. The results from the disclosure index indicate (TVD) that the level of average voluntary disclosure in the sample companies is 42.85%. The highest score achieved by a firm is 72.35% and the lowest score is 18.24% with a standard deviation of 13.94%. It seems that the firms are widely distributed with regard to voluntary disclosure. It is consistent with Hossain and Hammami (2009) in Qatar (36.84%), Akhtaruddin *et al.*, (2009) in Malaysia (53.20%) and Al-Shammari (2008) in Kuwait (46%). The average Percentage of Female Director is 12.76 with a standard

deviation is 14.74. The mean of the proportion of independent non-executive directors (PIND) to the directors on the board is 10.56% with a standard deviation is 6.18%. The average board leadership structure (BLS) is 0.66 with a standard deviation 0.45. The average board size (BSZE) is 7.36 with minimum and maximum sizes of 4 and 13 respectively. Percentage of equity owned by the insiders to all equity of the firm is 40.87 with standard deviation is 17.90. The average firm size is (Taka Bangladeshi) Tk.35858.58 lakh and Tk.31075.36 lakh respectively in terms of total assets (TA) and total sales (TS).

**Figure 1.** The Year-wise disclosure score of sample companies

The figure 1: shows that the average voluntary disclosure items of the listed companies are 41.13% in the year 2007. Consequently, 41.87% disclose in 2008; 42.78 % disclose in 2009; 43.8% disclose in

2010 and 44.69% disclose in 2011. An aggregate, the voluntary disclosure items are gradually increased.

## 7.2. Pearson Correlation analysis

**Table 4.** Pearson Correlation analysis results (N=106)

	VD	FD	IND	BLS	BSZE	OS	TA	TS
VD	1.000							
PFD	.297(**)	1.000						
IND	-.016	.112	1.000					
BLS	.407(**)	.136	.051	1.000				
BSZE	.314**	.059	-.222*	.256**	1.000			
PEOI	-.548(**)	-.144	.055	-.273(**)	-.206*	1.000		
TA	.407(**)	-.105	-.017	.077	.286**	-.090	1.000	
TS	.231(*)	-.151	.049	.058	.192*	.039	.763(**)	1.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 4 provides the Pearson product-moment correlation coefficients of the continuous explanatory variables as well as the dependent variable included in the year of average data for 2007-2011. The result of Pearson product-moment correlation exposed that percentage of female director, board leadership structure, board size and total assets are positively related to voluntary disclosure ( $P < 0.01$ , Two-tailed), but Percentage of equity owned by the insiders to all equity of the firm

is negatively related to voluntary disclosure ( $P < 0.01$ , Two-tailed). Total BSZE is positively related to the board leadership structure at the level of ( $P < 0.01$ , Two-tailed). Percentage of equity owned by the insiders to all equity of the firm is negatively related to BLS ( $P < 0.01$ , Two-tailed) and BSZE ( $P < 0.01$ , Two-tailed).

## 7.3. Multiple Regression Analysis

**Table 5.** Multiple Regression Results (N=106)

Variables	Coefficient	Standard Error	Bata t Values	Significance
PFD	0.245	0.066	3.509	0.001***
IND	-0.024	0.155	-0.357	0.722
BLS	0.233	2.179	3.294	0.002***
BSZE	0.049	0.643	0.634	0.528
PEOI	-0.410	0.056	-5.690	0.000***
TA	0.406	0.000	3.804	0.000***
TS	-0.038	0.000	-0.351	0.726

$R$  Square = 0.549; Adjusted  $R$  square = 0.522

$F$  value = 20.084;  $F$  significance = 0.000

\* $P < 0.1$ , two-tailed, \*\* $P < 0.05$ , two-tailed, \*\*\*  $P < 0.01$ , two-tailed

Table 5 shows the association between voluntary disclosure index and experimental variables. The coefficient of coordination R-square, F ratio, beta coefficients and t-statistics for the regression model and summarized results of the dependent variable on the explanatory variables can be seen in the Table-5. The result indicates an R-square of 0.549, and an F value of 20.084, which is significant at the 0.000 levels. Both of these values suggest that a significant percentage of the variation in voluntary disclosure can be explained by the variations in the whole set of independent variables.

The percentage of the female directors to the directors on the board is a significant corporate governance variable. The hypothesis of the variable is: H1: A higher proportion of female directors on a board is positively related to the level of voluntary disclosure. The regression coefficient for the variable is 0.245, which is positive and statistically significant at the level of 0.001 ( $P < 0.01$ , two-tailed). The result indicates that the percentage of female directors to the total directors on board of a firm is positively associated with the level voluntary disclosure of information which supports the hypothesis.

The significant corporate governance variable is the board leadership structure. The regression coefficient for the variable is 0.233 and significance at the 0.002. The result suggests that firms have a board leadership structure is positively associated with voluntary information at the level of 1% significant.

The significant corporate governance variable is the ownership structure. The regression coefficient for the variable is -0.410, which is negative and statistically significant at the 0.000 level ( $P < 0.01$ , two-tailed). This result suggests that the extent of voluntary disclosure is negatively associated with a Percentage of equity owned by the insiders to all equity of the firm higher management ownership

Concerning the firms' specific variables, this study suggests that firms that are larger in size in respect to total assets. The hypothesis of the variable: The extent of voluntary disclosures is positively associated with the total assets. The regression results for firm size by total assets are positively significant at the 0.000 level ( $P < 0.01$ , two-tailed).

## CONCLUSION

The objective of this study is to examine the board diversity and their influence on voluntary disclosure in annual reports of Bangladesh. These factors include percentage of female directors, proportion of independent non-executive directors on the board, board leadership structure, board size of the firm, percentage of equity owned by the insiders to all equity of the firm, total assets and total sales. In particular, the study aims to determine which of these factors are significantly related to increased voluntary disclosure. The study used the disclosure index to measure voluntary disclosure on a sample of 106 listed companies of Dhaka Stock Exchange in Bangladesh. The finding of this study has contributions for the regulators and enforcement agencies such as Institute of Cost and Management Accountants of Bangladesh (ICMAB), Institute of Chartered Accountants of Bangladesh (ICAB), the Securities and Exchange Commission (SEC) and the Dhaka Stock Exchange (DSE). First limitation of the study is used only non-financial companies as a

sample. So, the results may not extend across all listed companies in Bangladesh. Second, the researchers' constructed disclosure index that has been used in the study. The index is very sensitive and can affect the results if the selected items of information improperly.

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