CORPORATE GOVERNANCE, CULTURAL FACTORS AND VOLUNTARY DISCLOSURE: EVIDENCE FROM SELECTED COMPANIES IN BANGLADESH

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Abstract

This research aims to test empirically the relationship between corporate governance, cultural factors and voluntary disclosure by the listed companies in Bangladesh. The corporate governance factors examined are proportion of independent non-executive directors (INDs), board leadership structure, management ownership, board size and audit committee size. The extent of voluntary disclosure level is measured using 68 items of information. Data are taken from annual reports of the listed companies in Bangladesh. The result shows a positive association between board size, board leadership structure, audit committee size and voluntary disclosure. However, no evidence is found to support the contention that independent directors are associated with increased disclosure, consistent with previous studies. Higher education of the CEO and CFO is positively related to the level of voluntary disclosure. The result also indicates that the extent of voluntary disclosures is negatively associated with a higher management ownership[17].

Keywords: Corporate Governance, Voluntary Disclosure, Cultural Factors, Dhaka Stock Exchange

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1 Introduction

Corporategovernance issue has become crucial particularly aftermath of Enron, WorldCom, Global Crossing, Adelphia and AIG. Corporate Governance (CG) delineates the relationship between corporate managers, directors and the shareholders who save and invest their capital to earn a return in an economy. Schleifer and Vishny (1997) define corporate governance as mechanisms through which suppliers of financing will receive maximum return on their investments. Generally, the term corporate governance refers to the system by which firms are directed and controlled and which specifies the rights and responsibilities of shareholders and managers (Brennan and Solomon, 2008). Disclosure, on the other hand, refers to information made available at the discretion of the corporation. Disclosure is viewed as an important mechanism for aligning shareholder and management interests (Hermanson, 2000; Bushman and Smith, 2001; Healy and Palepu, 2001). The extent of disclosure is influenced by changes in the attitudes in society, economic factors and behavioral factors such as the particulars corporate culture. Disclosure does not provide the need of the users because managers are likely to consider their own interests when exercising managerial decision. The great feature in corporate reporting is that a company generally provides information to fulfill specific obligations to society, investor, supplier, creditors and legal authorities. Disclosure items may be classified into historical, current and predictive items, depending on whether they are based on the past, present or envisaged performance of the company. Although different theoretical perspectives make different influence (i.e. stakeholder theory, agency theory, legitimacy theory and political economy theory), they all agree that companies release information mostly for traditional user groups such as shareholders, creditors, financial analysis and security

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consultants who find this information useful when making investment decisions (Cooke, 1989). The agency theory implies that companies increase disclosure in order to moderate conflicts between shareholders and managers. In addition, companies wishing to improve their firm value may do so by increased disclosure (Lobo & Zhou, 2001). In an effort to ensure accountability and financial transparency in corporate America, Sarbanes Oxley Act (SOX) of 2002 was enacted. This law compels US managers to disclose corporate governance mechanisms and processes that their firms have put in place to protect shareholder interests (Gupta, Kennedy & Weaver, 2009). Other developed countries like Canada, Australia, UK and Australia have also taken similar corporate governance measures to increase corporate reporting.

Recent research indicates that comparatively little effort has been devoted to corporate governance (Akhtaruddin, Hossain and Lee, 2009; Hongxia and Ainia, 2008; Ho and Wong, 2001; Chau and Gray, 2002; Haniffa and Cooke, 2002; Eng and Mark, 2003) issues in the Asian region and thus evidence of the determinants of disclosure in this region is limited compared to evidence from the developed countries. In this present study, we examine the role of corporate governance to the voluntary information in Bangladesh. The aim of this study is to examine the association between corporate governance, cultural and the extent of voluntary disclosure in the annual reports of Bangladeshi companies.

The remainder of this paper is organized as follows : Section 2 discusses prior research and develops hypotheses. Section 3 presents methods and data. Section 4 reports results and discusses findings and finally conclusions and potentials for future study are provided in section 5.

2 Background and Hypothesis Development

2.1 Corporate disclosure

Since Bangladesh was a British colony before August 14, 1947, its financial reporting system is largely influenced by the British accounting system. The mandatory disclosure requirements in Bangladesh are generally guided by the Companies Act, 1994, Bank Companies Act 1991, Securities and Exchange Ordinance 1969, Listing Rules issued by Securities and Exchange Commission of Bangladesh, and the statements of standard accounting practices issued by the Institute of Chartered Accountants of Bangladesh (ICAB). The companies Act, 1994 provides, among others, provision for the preparation and publication of financial statements, disclosures, and auditing. But in many cases the Act lacks clarity with regard to mandatory disclosure requirements in the financial statements of listed companies. Moreover, some accounting requirements in the Companies are not compatible with International Reporting Standards. Overall, the scope of disclosure requirements is less specific and much narrow. For example, related party transactions, insider trading, and directors' ownership interest and remuneration are not disclosed properly in the financial statements. Disclosure rules in Bangladesh are in fact much less stringent compared to the U.S. and U.K.

Companies in Bangladesh have to make disclosure of information required by laws. But the laws and processes are inadequate in terms of provisions and even not strong in terms of enforcement. Again, over-regulation and inconsistence make the companies reluctance follow the minimum disclosures in the financial statements. The quality and quantity of disclosure made in the annual reports thus vary quite substantially. Specifically, listed companies are insisted to disclose more information in the annual reports voluntarily. Securities and Exchange Commission of Bangladesh keeps its eye over the listed companies to improve transparency and accountability.

2.2 Corporate governance

Corporate governance is viewed as an effective mechanism to control the agency problem and ensure that the manager acts in the interest of shareholders. Disclosure of information is considered as one of the major indicators of standard of corporate governance. Capital market, that facilitates good governance through smooth flow of information, is weak in Bangladesh. One vital aspect is that it does not often react to corporate performance in terms of higher stock valuation for disclosure and poor stock price for failure of accurate and full disclosure. Companies have little incentive for listing on the stock exchange. Companies mostly depend on the banks for financing. Mitton (2002) views strong governance as the key tool in capital market development, which creates confidence among the shareholders/investors who then ready to pay higher price for the stock, and hence, enhances the ability of a firm to raise capital from the security markets. In order to improve disclosure in corporate reporting Securities and Exchange Commission of Bangladesh has prescribed some rules. The rules included are:The number of the board members of a company should not be less than 5 (five) and more than 20 (twenty).All companies should encourage effective representation of independent directors on their board.

At least one tenth (1/10) of the total members on the board should be of independent directors with a minimum of one. CEO should be separated from board chairman. The two positions should preferably filled by two individuals. The company should have an Audit Committee to assist the Board of Directors in ensuring that the financial statements reflect true and fair view of the state of affairs of the company and in ensuring a good monitoring system within the business. The Audit Committee shall be responsible to the Board of Directors. The duties of the Audit Committee should be clearly set forth in writing. The Audit Committee should be composed of at least 3 (three) members. The Board of Directors should appoint members of the Audit Committee who should be directors of the company and should include at least one independent director. The Board of Directors should select one member of the Audit Committee to be Chairman of the Audit Committee. The Chairman of the audit committee should have a professional qualification or knowledge, understanding and experience in accounting or finance.

2.3 Hypothesis development

The demand for published financial information of companies has increased worldwide as users of the information become more attentive. But often disclosure does not provide the need of the users because managers are likely to consider their own interests when exercising managerial decision. In fact, this might increase the disclosure gap–the difference between expected and actual disclosures. The great feature in corporate reporting is that a company generally provides information to fulfill some specific obligations. However, certain information is likely to be influenced by corporate governance factors to find out their links with disclosure. The present study focuses the level of disclosure linking to board composition, board leadership structure, board size, and size of audit committee.

In addition to the corporate governance, the level of disclosure of information crucially depends on the institution environment in which companies operate. Institutional differences across jurisdictions such as, education, experience, and age matter. Culture often refers to the life styles of the members of a society, particularly their feelings, acting, patterned and repetitious way of thinking.This study considers business and accounting education of audit committee members, higher education of the CEO and the CFO and higher experience of the board chairman for analysis.

2.3.1. Independent non-executive 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. Empirical evidence on the importance of non-executive directors on board has been mixed. Kosnik (1990) argues that outside directors are more effective than inside directors in maximizing shareholders' wealth. In contrast, Klein (1998) suggests that inside directors can contribute more to a firm than outside directors due to their firm-specific knowledge and expertise. Barako, Hancock, and Izan (2006), Ho and Wong (2001) do not find association between the proportion of outside non-executive directors and the extent of voluntary disclosure. Leftwich, Watts and Zimmerman (1981) demonstrate that firms can expect more voluntary disclosure with the inclusion of a larger number of independent non-executive directors on the board. 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 (2000) 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. These findings are consistent with agency theory tenets where a higher proportion of independent directors enhance voluntary financial reporting (Barako, et al., 2006). The reason for this is that the presence of independent directors reduces the cost of voluntary disclosure because directors are generally independent of the day-to-day business operations of the firm (Patelli and Prencipe, 2007). A firm may have higher level of disclosure if the boards consist of more outside directors. These observations suggest the following hypothesis:

H_1: A higher proportion of independent non-executive directors on a board is positively related to the level of voluntary disclosure.

2.3.2 Board Leadership Structure

Within the contextofcorporategovernance,thecentral issue often discussed is whether the chair of the board of directorsand CEOpositionsshouldbeheldbydifferent persons(dualleadershipstructure)orbyoneperson (unitaryleadership structure). Accordingto agencytheory,thecombinedfunctions(unitaryleadershipstructure) cansignificantlyimpairtheboard'smostimportant functionofmonitoring,discipliningandcompensating senior managers.Italsoenablesthe CEOto engagein opportunisticbehavior,becauseofhis/herdominance overtheboard.Forker(1992)empiricallystudiedthe relationshipbetweencorporategovernanceanddisclosurequality,andpresentedevidenceofanegative relationshipbetweendisclosurequalityand'dominant personality'(measuredasCEOandboardchaircombined). Hence, to the extent that the combined chair/CEO positions signals the absence of separation of decision managementanddecisioncontrol (Dulacha, 2007). The following hypothesis is examined:

H_2: The extent of voluntary disclosure is positively related for firms with a dual leadership structure.

2.3.3 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). Research emphasizes the importance of strategic information and resources in a highly uncertain environment. Birnbaum (1984) suggests that uncertainty and the lack of information may be minimized by a larger board.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, Neubaum, and Huse, 2000). 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 thus suggested:

H_3: The number of directors on a board is positively related to the level of voluntary disclosure.

2.3.4 Ownership structure

Ownership structure is another mechanism that aligns the interest of shareholders and managers (Eng and Mak, 2003; 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 contrast, Hongxia, and Ainian (2008) show that higher managerial ownership have high level of voluntary disclosures.Oliveira, Rodrigues, and Craig (2006) also reported that firms with a lower management ownership report more information. Again, 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. The significant role of management ownership in influencing voluntary disclosures practices of firms is evident from the prior research. So it is expected that ownership structure will influence the voluntary disclosure information.The hypothesis is formally stated as:

H4: The extent of voluntary disclosures is negatively associated with a higher management ownership.

2.3.5 Audit Committee Size

Previous researches provide evidence of a positive association between the presence of an audit committee and corporate disclosure practices (Barako et al.,2006; Ho and Wong, 2001). Similarly, McKinnon and Dalimunthe (1993) reported that the presence of an audit committee is associated with reliable financial reporting, such as, reduced incidence of errors, irregularities, and other indicators of unreliable reporting. In addition, Bradbury(1990) argued that: "auditcommittees are commonly viewed as monitoring mechanisms that enhance the audit attestation function of external financial reporting". The board usually delegates responsibility for the oversight of financial reporting to the audit committee to enhance the breadth of relevance and reliability of annual report (Wallace and Naser, 1995). Thus, audit committees can be a monitoring mechanism that improves the quality of information flow between firm owners (shareholders and potential shareholders) and managers, especially in the financial reporting environment where the two have disparate information levels. Given the influence of audit committees on the context and conten to corporate annual reports, the following hypothesis is tested

H5:The number of members on audit committee is positively related to the level of voluntary disclosure.

2.3.6 Education

Educational background can be an important determinant of disclosure. An educated manager can see the things in better and broader way. His pattern of thinking is superior and tries to expose more due to his analytical bent of mind. Moreover, education in different culture with better environments helps one expose to more ideas, knowledge and technology know-how. Merchant, Chow, and Wu (1995) argue that managers with western education could pay a crucial role in disclosing their disclosure behavior. Gray (1988) finds education as an institutional consequence influencing accounting practices.

Giventheinfluenceofforeign educationoncorporateannualreports,thefollowing hypothesis is tested:

H6:Higher percentage of audit committee members qualified in business and accounting is positively related to the level of voluntary disclosure.

H7:Higher education of the CEO is positively related to the level of voluntary disclosure.

H8:Higher education of the CFO is positively related to the level of voluntary disclosure.

2.3.7 Working experience

There is a perception that experienced board members are expected to prefer greater disclosure to demonstrate accountability and enhance the image of the company. Professional experience in accounting and finance will help management to be aware of disclosure issues (Ahmed and Nicholls, 1994). Gray (1988) identified business experience as an important variable affecting accounting values and practices. Based on this observation the following hypothesis is stated:
H9: Higher experience of board chairman is positively related to the higher level of voluntary disclosure.

2.3.8 Control variables

A review of the literature on voluntary disclosure led to the decision to include control variables in the multiple regression models for testing the main hypothesis. These are firm size (Barako et al., 2006; Cooke, 1993; Lang & Lundholm, 1993 and Lobo & Zhou; 2001), and profitability (Wallance & Naser, 1995; Karim, 1996; Owusu-Ansah, 1998).

3 Research Design and Methodology

3.1 Disclosure Index Construction and Application

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 consideration with the disclosure checklist used by Akhtaruddin, (2009), Chau and Gray (2002), Ho and Wong (2001), and Ferguson, Lam and Lee (2002).

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, (2005). 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 prepared was then sent to various experts (Professors, Professional Chartered Accountants, Cost and Management accountants.) 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 (Appendix-1).

We employed an unweighted approach for the study. This approach is most appropriate when no importance is given to any specific user-groups (Cooke, 1989; Hossain, Tan, and Adams, 1994; Akhtaruddin et al., 2009; Hossain, and Hammami, 2009). After establishing the disclosure index, a scoring sheet was developed to assess the extent of voluntary disclosure. If a company disclosed an item of information included in the index, it received a score of 1, and 0 if it is not disclosed (Cooke, 1989). The method of initially computing the disclosure score for each company can be expressed as follows:

$$\text{DCOR} = \sum_{j=1} \frac{dj}{n} \tag{1}$$

Where, DCOR =the aggregate disclosures score;
dj= 1 if the jth item is disclosed or 0 if is not disclosed; and
n=the maximum score each company can obtain.

3.2 Sample Selection and Data Sources

Annual reports of listed companies on Dhaka Stock Exchange (DSE) constitute the sample for this study. The main criteria used for sampling the firms were: (i) annual reports must be available at the stock exchange and (ii) the firm must have been listed for the entire period of the study 2006. All banks, insurance, and unit trusts companies were excluded because of different statutory requirements. The companies listed on the DSE are classified into thirteen categories for which seven categories were identified. These are engineering, food & allied, fuel & power, textile, pharmaceuticals & chemicals, tannery & paper and cement & ceramics. Corporate governance, cultural factors and voluntary disclosure data were collected from the annual reports. The comparative distribution of the companies in the population and the sample can be seen in Table 1.

Table 1. Distribution of sample by industry types

Industry Types	Population		Sample	
	Number	**%**	**Number**	**%**
Engineering,	23	13.77	15	15.96
Food& allied,	35	20.96	14	14.89
Fuel & power,	10	5.99	10	10.64
Textile,	38	22.75	12	12.78

Pharmaceuticals & chemicals,	24	14.37	15	15.96
Tannery & paper& Service	18	10.78	12	12.76
Cement & ceramics& IT	19	11.38	16	17.02
Total	167	100	94	100

3.3 Test of Hypothesis

The statistic method being used is multiple regression analysis. The regression equitation developed empirically to test the relationship between corporate governance and voluntary disclosure level. The approach used to determine the level of disclosure following the method used by Haniffa and Cooke (2002). The regression technique used to test H1,is as follows:

$$TVDE_{i\,j,t} = \sum_{t-1}^{Nij} Xij \qquad (2)$$

Where,TVDE= total voluntary disclosure score for j^{th} firm at the time t,

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

$$TVD = a + \beta_1 PIND + \beta_2 BLS + \beta_3 BSZE + \beta 4\ MANO + \beta_5 ACSZE + \beta_6 PBMQ + \beta\ 7\ HECEO + \beta\ 8\ HECFO + \beta 9\ HEBC + \beta_{10} TA + \beta_{11} TSE + \beta_{12} ROA + \varepsilon \qquad (3)$$

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TVD = Total voluntary disclosure score received from each company
PIND =Percentage of independent non-executive directors to directors on board.
BLS= Board leadership structure, 1 for duel or 0 non-dual
BSZE =Board size.
MANO= Percentage of equity shares owned by management.
ACSZE= Audit committee size.
PBMQ = Percentage of board members qualified in business and accounting.
HECEO = Higher education of the CEO, 1 for foreign or 0 for others.
HECFO = Higher education of the CFO, 1 for foreign or 0 for others.
HEC = Higher experience of the board chairman.
TA= Total assets of the firm.
TSE= Total Sales of the firm.
ROA = Return on total assets.
a= total constant, and
ε= the error term

4 Results and Discussion

4.1 Descriptive Statistics

Table 2 provides descriptive statistics of the voluntary disclosure index and the continuous independent variables. The results from the disclosure index indicate (TVD) the highest score achieved by a firm is 72% and the lowest score is 18% with a standard deviation of 12.239%. The mean aggregate voluntary disclosure index is 47.25. This indicates that the firms are widely distributed with regard to voluntary disclosure. The mean of the proportion of independent non-executive directors (PIND) to the directors on the board is 9.94 with standard deviation of 8.63%. The average board size (BSZE) is 6.66 with minimum and maximum sizes of 3 and 13 respectively. The average audit committee size is 2.41 with a maximum of 5. Around 37.22% of board members qualified in business and accounting. The average experience of the board chairman is 21.81 years. The average firm size is (Taka Bangladeshi) Tk.25,6711.88 lakh and Tk.17,744.69 lakh respectively in terms of total assets (TA) and total sales (TSE).The statistics on the net profit indicate that a small portion of sample firms show negative returns.

Table 2. Descriptive Statistics for all Variables

Variables	Mean	Minimum	Maximum	Std. Deviation
TVD	47.25	18	72	12.239
PIND	9.94	0	38	8.632
BLS	0.70	0	1	0.460
BSZE	6.66	3	13	2.051
PEOI	22.16	0	19.76	66
ACSZE	2.41	0	5	1.62
PBMQ	37.22	0	80	28.009
HECEO	0.49	0	1	0.503
HECFO	0.48	0	1	0.502
HEC	21.81	12	38	5.870
TA	25671.88	56.95	378056.50	65430.443
TSE	17744.69	0000	441016.71	58582.903
ROA	-1.2312	-258.96	64.09	38.7936

Table 3 shows the number and percentages of companies whose disclosure score is within the specified range. The majority (34.1%) of the companies falls in the category of 41-50 scores.

Table 3. Voluntary Disclosure Score

Disclosure Score (%)	No. of Companies	Percentage	Cumulative %
<=30	8	8.5	8.5
31-40	19	20.3	28.8
41-50	32	34.1	62.9
51-60	19	20.3	83.2
61-70	14	14.7	97.9
71-80	2	2.1	100
>80	0	0.0	00

4.2 Results of Correlation Test

Table 4 presents the Pearson product-moment correlation coefficients of the continuous explanatory variables as well as the dependent variable included in the survey. The result of Pearson product-moment correlation exposed that board leadership structure, board size, board audit committee, members qualified in business and accounting, higher education (Foreign) of the CEO, higher education (Foreign) of the CFO, higher experience of board chairman, total assets and net profit are positively related to voluntary disclosure ($P<0.01$, Two- tailed). Similar results appear for the board independent director and significant (0.05). On the other hand, TVD has negative relationship with management ownership and is significant. However, TVD has a positive relationship with total sales and return on assets but not significant.

Table4. Pearson Correlation analysis results (N=94)

Variables	TVD	PIND	BLS	BSIZE	MANO	ACSIZE	PBMQ	HECEO	HECFO	HEC	TA	TSE	ROA
TVD	1.000												
PIND	.224(*)	1.000											
BLS	.496(**)	.211(*)	1.000										
BSIZE	.351(**)	.122	.221(*)	1.000									
MANO	-.717(**)	-.201	-.378(**)	-.254(*)	1.000								
ACSIZE	.651(**)	.436(**)	.371(**)	.245(*)	-.572(**)	1.000							
PBMQ	.657(**)	.407(**)	.408(**)	.214(*)	-.527(**)	.777(**)	1.000						
HECEO	.453(**)	.140	.227(*)	.156	-.383(**)	.190	.246(*)	1.000					
HECFO	.537(**)	.017	.260(*)	.079	-.360(**)	.423(**)	.397(**)	-.097	1.000				
HEC	.660(**)	.088	.336(**)	.144	-.475(**)	.342(**)	.407(**)	.335(**)	.467(**)	1.000			
TA	.329(**)	.061	.198	.298(**)	-.270(**)	.204(*)	.242(*)	.245(*)	.199	.226(*)	1.000		
TS	.186	.142	.163	.232(*)	.002	.138	.165	.050	.085	.044	.577(**)	1.000	
ROA	.066	.060	.240(*)	.207(*)	-.253(*)	.122	.093	.104	.034	-.103	.146	.066	1.000

PIND = Percentage of Independent Non-executive Directors to directors on board, BLS = Board Leadership Structure, 1 for duel or 0 non-dual, BSZE = Total number of member on each board, MANO = Percentage of Equity Owned by the management, ACSIZE = Audit Committee Size, PBMQ= Percentage of Members Qualified in Business and Accounting to total members in the AC, HECEO = Higher Education (Foreign) of the CEO, 1 for Foreign or 0 for others, HECFO = Higher Education (Foreign) of the CFO, 1 for Foreign or 0 for others, HEC = Higher Experience of the board chairman, TA = Total Assets of the firm, TSE = Total Sales of the firm, ROA = Return on Assets as net profit to Total Assets.

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

We use the Variance Inflation Factor (VIF) to test the multicollinearity in the regression model. The Variance Inflation Factors for all independent variables are less than 10 and the tolerance values do not explain more than 10% of any independent variables' variance. Thus, it is not an issue.

4.3 Results of Multiple Regression Analysis

Table 5 shows the results of the multiple regression analysis in our study. Regression has been used in much previous research (Aktaruddin et al., 2009; Barako et al.,2006; Hongxia & Ainian, 2008; Owusa-Ansah, 1998; Wallace & Naser, 1995). The table 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-7. The result indicates an R-square of 0.795, and an F value of 25.152, 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.

Table5. Multiple Regression Analysis (N=94)

Variables	Coefficients	Std. Error	Beta t value	Significance
PIND	-0.035	0.080	-0.604	0.548
BLS	0.113	1.537	1.904	0.061*
BSIZE	0.129	0.322	2.309	0.024**
MANO	-0.289	0.045	-3.948	0.000***
ACSIZE	0.146	0.847	1.271	0.207
PBMQ	0.100	0.047	0.910	0.365
HECEO	0.231	1.455	3.719	0.000***
HECFO	0.237	1.574	3.530	0.001***
HEC	0.201	0.140	2.886	0.005**
TA	-0.052	0.000	-0.754	0.453
TS	0.108	0.000	1.626	0.108
ROA	-0.096	0.017	-1.678	0.097*
* P<0.01, two tailed, ** P<0.005, two tailed,*** P<0.001, two-tailed				
R squire =0.795; Adjusted R squire= 0.763; F Value =25.152; F significance =.000 ; Durbin Watson test =1.642				
PIND =Percentage of Independent Non-executive Directors to directors on board, BLS= Board Leadership Structure, 1 for duel or 0 non-dual, BSZE = Total number of member on each board, MANO =Percentage of Equity Owned by the management, ACSIZE = Audit Committee Size, PBMQ=Percentage of Members Qualified in Business and Accounting to total members in the AC, HECEO = Higher Education (Foreign) of the CEO, 1 for Foreign or 0 for others, HECFO= Higher Education (Foreign) of the CFO, 1 for Foreign or 0 for others, HEC = Higher Experience of board Chairman, TA = Total Assets of the firm, TSE = Total Sales of the firm, ROA = Return on Assets as net profit to Total Assets.				

If the independent variable PIND is one unit increased then this situation the dependent variable is decreased -0.035 with SE = 0.080, Bata t value = -0.604 and significance at the 0.548. The result suggests that disclosure is not associated with voluntary information for firms having a higher proportion of INDs. This result is similar to that of Barako et al., (2006) and Ho &Wong (2001) who reported a negative association between the board composition variable and the extent of voluntary disclosure.

The next corporate governance variable is board leadership structure. The regression coefficient for the variable is 0.113, which is positive but not significant. This does not provide support for hypothesis H_2 that the extent of voluntary disclosure is positively related for firms with a dual leadership structure. The most significant corporate governance variable is board size. The coefficient for board size is 0.129 and positive. It is statistically significant at the 0.024 level which suggests that a larger board is positively related to the level of voluntary disclosure. This result is similar to Akhtaruddin, et al., (2009), Zahra et al. (2000).

Percentage of equity owned by management is negatively related to the level of voluntary disclosure. It is statistically significant at the 0.000 level. This result is similar to that of Haniffa and Cooke (2002).

The most significant cultural factors higher education of the CEO and higher education of the CFO are positively related to voluntary disclosure at 0% level of significant. This outcome has the support of Merchant et al., (1995) and Gray (1988). The next significant variable is higher experience of the board chairman. The regression coefficient for the variable is 0.201, which is positive and statistically significant at the 5% level.

With regard to control variables, this study suggests that return on assets is negatively associated with the level of disclosure at 10% significant level. Finally, regression results for firm size are insignificant. This is inconsistent with Ho and Wong (2001) and Ferguson et al., (2002).

5 Conclusions and Implication for Further Study

This research is an extension of previous research where a set of corporate governance variables is considered to examine their association with the level of voluntary disclosure. The objective of this study was to examine corporate governance, cultural factors and their influence on voluntary disclosure. These factors include proportion of independent non-executive directors on the board, board leadership structure, board size, management ownership, audit committee size, percentage of members qualified in business and accounting, higher education (Foreign) of the CEO, higher education (Foreign) of the CFO and higher experience of board chairman,. In particular, the study aimed to determine which of these factors were significantly related to increased disclosure. We also controlled for the variables suggested in prior research as significant contributions to voluntary disclosure. These control variables included are firm size and profitability of the firm. The study used the disclosure index to measure voluntary disclosure on a sample of 94 listed companies of Bangladesh. The fourth hypothesis of the study was the extent of voluntary disclosures is negatively associated with a higher management ownership. Findings of our result show that it is negatively related to higher management ownership. The results of the study show that the extent of voluntary disclosure is positively related for firms with Higher Education (Foreign) of the CEO, Higher Education (Foreign) of the CFO. The findings of this research support it more that higher number of directors on a board is higher voluntary disclosure and the level of voluntary disclosure is associated positively with board leadership structure.

There are a number of limitations of this study as well. First, limitation of the study is used only non-financial companies as a sample. So, the results may not extend across all companies in Bangladesh. Second, the researchers' constructed disclosure index has been used in the study. The index is very sensitive and can affect the results if the selected items of information improperly. Third, the study considers data of only one year. The results may differ across different years if multiple years are considered for analysis. Finally, the study investigates the extents of voluntary disclosure leaving the other facet of disclosure i.e., mandatory disclosure. The higher levels of voluntary disclosures, therefore, do not necessarily mean higher transparency. The results of the study should be interpreted with these limitations in mind.

Future research on voluntary disclosure should seek to take into account all listed companies under non-financial group. Additionally, studying the same research issues found here but in a different industry sector would be an interesting extension of this study. This may disclose interesting results in terms of variations within the industrial sectors.

Finally, future research should focus on the issues we raise in this paper using a disclosure index. This study covers the annual reports for a single year. Additional research is needed to assess the trends of voluntary disclosure and the quality of corporate governance over time.

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Appendix1. Voluntary Disclosure Check List in Annual Reports of Bangladesh

1. General Corporate Information 1. Company's mission statement 2. Brief history of the company 3. Corporate structure / chart 4. Description of major goods/services produced 5. Stock exchanges on which shares are held **2. Corporate Strategic Information** 6. Statement of corporate strategy and objectives– general 7. Statement of corporate strategy and objectives – financial 8. Statement of corporate strategy and objectives – marketing 9. Statement of corporate strategy and objectives – social 10. Impact of strategy on current performance **3. Corporate Governance/Directors Information** 11. Name of principal shareholders 12. List of Directors 13. Shares held by directors of the company 14. Meeting held and Attendance 15. Educational qualifications of the directors 16. Experience of the directors 17. Position or office held by executive directors 18. Other directorship held by executive directors 19. Remuneration of the directors **4. Financial Information** 20. Amount and sources of revenue 21. Sources of raw materials 22. Dividend payout policy 23. Retained earnings 24. Unit selling price 25. Growth in units sold 26. Foreign currency information 27. Intangible assets break-down 28. Policies regarding the amortization of intangible assets **5. Financial Review Information** 29. Liquidity ratios 30. Debt / equity ratio 31. Return on capital employed 32. Return on shareholders' equity 33. Net tangible assets per share 34. Dividend per ordinary share for the period 35. Effects of inflation on future operations-qualitative 36. Effects of interest rates on results	**6. Foreign Currency Information** 37. Effects of foreign currency fluctuations on future operation-qualitative 38. Effects of foreign currency fluctuations on current results-qualitative **7. Segmental Information** 39. Competitor analysis- quantitative 40. Competitor analysis- qualitative 41. Market share analysis- quantitative 42. Market share analysis- qualitative **8. Employee Information** 43. Total number of employees for the company 44. Average compensation per employee costs 45. Category of employees by sex 46. Number of employees trained 47. Welfare information 48. Policy on employee training 49. Data on accidents **9. Research and development Information** 50. Description of Research and development projects 51. Corporate policy on Research and development **10. Future Forecast Information** 52. Market share forecast 53. Future cash flow forecast 54. Sales forecast 55. Profit forecast 56. Compared former earnings forecast date 57. Compared former sales forecast date 58. Capital expenditure and R &D expenditure forecast **11. Share price Information** 59. Sales amount changes and explanations 60. Operating income changes and explanations 61. Gross profit changes and explanations 62. Accounts receivables changes and explanations 63. Inventory changes and explanations **12. Social Responsibility Information** 64. Information on safety measures 65. Environmental protection programs 66. Information on community services **13. Graphic Information** 67. Graphic presentation of financial information 68. Graphic presentation of non- financial information