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Corporate Mandatory and Voluntary Disclosure Practices in Bangladesh: Evidence from listed companies of Dhaka Stock Exchange

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Abstract

This paper investigates the extent and level of mandatory and voluntary disclosure practice of companies in Bangladesh. The paper has been conducted on the sample of 54 listed companies in Bangladesh for a data period of 2010 to 2013. This paper also reports the results of the association between company specific characteristics and mandatory as well as voluntary disclosure of the sample companies. Findings indicate on an average 71% of the companies analyzed disclose above-average number of additional information. The explanatory analyses has shown that firm size in terms of total asset and status of the company significantly and positively affect the level and extent of voluntary disclosure in the annual report of Bangladeshi companies. In case of mandatory disclosure level results point out that companies in general have not reacted adequately to the mandatory disclosure requirements of the regulatory bodies. The study reveals that disclosure compliance is poor among listed companies. They disclosed an average of 50.62% of the items selected during the study period of 2010 to 2013. The minimum score found in the study is 20.89% and the maximum is 77.08%. Using panel data regression analysis this study has found that company age and the status of the company (industry type) have appeared to be significant factors for mandatory disclosure. On the other hand company size in terms of total asset and sales, and company profitability was also found to have no effect on mandatory disclosure.

Keywords: Mandatory disclosure, Voluntary disclosure, Disclosure index, Bangladeshi companies, Corporate Governance.

1. Introduction

With a view to surviving in today's business world an organization should be much more transparent than that of before. Keeping the importance of corporate disclosure this paper investigates the extent and level of corporate mandatory and voluntary disclosures and their association with firm's characteristics. After a spiral of corporate scandals and financial crises, regulators, investors and other stakeholders called for greater corporate transparency from the business world. Business organizations have become aware of the importance of presenting information about the broader range of activities including both their financial performance and non-financial performance such as socially responsible performance (Akisik & Gal, 2011).In recent years, the issue of corporate disclosure has received a great deal of attention from many researchers (for example, see Benjamin & Stanga, 1977; Carol&Pownall, 1994; Cooke, 1989; Forker, 1992; Inchausti, 1997; Ingram & Frazier, 1980; Lang & Lundholm, 1993; Singhvi & Desai, 1971; Wallace, 1988). Investors while making investment decisions have to rely on the information provided by the firm. Corporate disclose information for investors, financial analysts, auditors, and regulators (Cooke, 1989).

In the relevant literature, information disclosure is categorized as mandatory disclosure and voluntary disclosure. Mandatory disclosure primarily focuses on presentation of financial statements and their complementary footnotes which are required by regulations and laws, whereas voluntary disclosure allows the management the freedom to choose which information to disclose (Uyar & Kılıç, 2012a). Disclosure is generally made in company annual reports through the statements or accompanying notes. Although other means of releasing information, such as medial release, interim reporting, letters to shareholders, and employee reports, are used by the companies, the annual report is considered to be the major source of information to various user-groups (Marston & Shrives, 1991). Nevertheless, all parts of the annual reports are not equally important to all users. The income statement is believed to be the section most preferred by investors, whereas cash flow statement and balance sheet are the most useful sections to bankers and creditors (Eccles & Mavrinac, 1995). Likewise, users of accounting information weight audit reports, directors' reports, accounting policies, and historical summary differently. The annual report should contain information that will allow its users to make correct decisions and efficient use of scarce resources.

Voluntary disclosure in the annual report indicates "information primarily outside of the financial statements that are not explicitly required by accounting rules or standards." It refers to additional information delivered by firms along with the mandatory information with a view to reducing the information asymmetry between insiders and outsiders; we must have the case where the former discloses voluntary information to the latter. This is essentially going to contribute to the alleviation of problems of adverse selection and of moral hazard. Voluntary disclosure is regarded as an external mechanism for the control of the insiders, a protection of the shareholders, and a decrease of the agency costs resulting from the asymmetry of information between the insiders and the outsiders (Wang et al., 2008). Giving this crucial role of voluntary corporate reporting policy, a considerable research area has been developed in order to identify factors that have the potential of affecting corporate voluntary disclosure practices in both emerging and developed markets. Although many factors have been identifies, the empirical evidence is rather mixed. Voluntary disclosure in the annual reports and in other information media has been one of the rapidly growing research areas in corporate arena. In this, several factors have played important roles. Among them are development of communication tools, stakeholders' need for more transparency, accountability, and corporate governance practices (Bleck and Liu, 2007).

This paper intends to investigate the disclosure practices of listed companies in Bangladesh to see how they comply with mandatory rules established by the regulatory bodies. In addition, it examines the association between company characteristics and the extent of both voluntary and mandatory disclosure. This paper will contribute to the growing literature on the determinants of corporate mandatory and voluntary disclosure level and the findings of the study would be of immense interest to listed companies, investors, and those involved in standard setting processes. However, the major limitation of the study is that this study is limited to only few companies listed on the stock exchanges.

The remainder of the paper is organized as follows. Section 2 discusses the literature review. Section 3 presents regulatory framework for disclosure in Bangladesh and section 4 develops the study's hypotheses. The research method is outlined in Section 5. Section 6 presents the results. Finally, Section 7 presents the conclusions, possible policy implications of the results and directions for future research.

2. Literature review

Since, the 1960s there has been an increased interest in accounting disclosure studies investigating various determinants of companies' disclosure practices. Cerf, A.R. (1961) measured disclosure by an index of 31 information items and concluded that financial reporting practices of many US companies need improvement. While earlier studies mostly evaluated the association between certain firm characteristics such as firm size, profitability, leverage, auditor size and voluntary disclosure level, recent studies have investigated the association between corporate governance attributes and ownership structure along with the variables in earlier studies and voluntary disclosure level.

Ahmed and Courtis (1999) conducted meta-analysis based on 29 disclosure studies between 1968 and 1997 by using variables such as corporate size, listing status, leverage, profitability, and audit firm size. They confirmed significant and positive relationships between disclosure levels and corporate size, listing status, and leverage, but they found no significant association between disclosure levels and profitability, and audit firm size.

A consistent finding is that size is an important predictor of corporate reporting behavior. Most researchers in this area found a close relationship between size and the extent of disclosure Singhvi et al.(1971), Cooke (1991 & 1992), Kahl & Belkaoui (1981). Larger listed firms involve stronger incentives to become discloser more information to get better their corporate standing and public representation since non-disclosure may be interpreted as bad news that could influence firm value ((McKinnon & Dalimunthe, 1993; Schipper, (1991)). However, Archambault et al., (2003); Ahmed et al., (1994); and Akhtaruddin (2005) did not find a relationship between size and level of disclosure. Size is one of important determinant of finding disclosure level and it has been used in many studies which focus on disclosure (Abd-Elsalam & Weetman, 2003; Aljifri, 2008; Chow & Wong-Boren, 1987; Depoers, 2000; Firth, 1979; Meek, Roberts, & Gray, 1995; Oliveira, Rodrigues, & Craig, 2011; Raffournier, 1995; Singhvi & Desai, 1971).They tested the relationship between disclosure (various kind) and company size. Although most prior studies support a positive relationship, there is an indistinct theoretical source for such a relationship.

With the exception of size, findings concerning association between company characteristics and corporate disclosure practices are mixed. Haniffa and Cooke (2002), and Gul and Leung (2004) found positive significant association, nonetheless the association between profitability and voluntary disclosure has also been investigated in previous studies (Wang et al., 2008; and Marston and Polei, 2004). Ghazali and Weetman (2006) argue that the more profitable the companies, the more likely it is for them to disclose financial information. Singhvi (1968) and Wallace et al. (1994) also found a significant positive association between profitability and the level of corporate disclosures, whereas, Belkaoui & Kahl (1978) observed a significant negative relationship between the two variables and some other researchers find no relationship at all McNally et al. (1982). Marston and Polei (2004) also stress that "good news" firms are encouraged to distinguish themselves out from other firms by disclosing more information. Whereas Alsaeed (2006), Hossain and Hammami (2009), Wallace et al. (1994), Inchausti (1997), and Chau and Gray (2010) found no significant association.

Association between the level of disclosure and industry types provides mixed evidence. Cooke (1989) findings report that manufacturing companies disclose more information than other types of companies. There have been few studies carried out in this regard and some studies show the presence of a significant relationship between industry type and disclosure level (Cooke, 1991, 1992; Meek et al., 1995; Wallace and Naser, 1995; Naser, 1998; Camffernman and Cooke, 2002; and Archambault and Archambault, 2003). On the other hand, other research reports no relationship between industry types and levels of disclosure (Wallace et al., 1994; Inchausti, 1997; Owusu-Ansah, 1998; Naser et al., 2002; Akhtaruddin, 2005; and Al Saeed, 2006).

Several previous studies used firm age variable. While**,** Hossain and Hammami (2009) found positive significant association between firm age and disclosure level, Hossain and Reaz (2007) found no significant association. Camfferman and Cooke (2002) identified in their study that the age of the company to be investigated by future studies. The rationale for selecting this variable lies in the possibility that old firms might have improved their financial reporting practices over time and secondly they try to enhance their reputation and image in the market (Akhtaruddin, 2005). Additionally, prior studies Wallace & Naser (1995) define mandatory disclosure as the presentation of a minimum amount of information required by laws, stock exchanges and the accounting standards setting body of facilitate evaluation of securities.

The selection of items included in the disclosure index is a major task in the construction of any disclosure index (Martson and Shrieves: 1991). Most of the previous studies have included items of information of interest to a particular group. In some other studies, items of information have been included keeping in mind their relevance to a broad range of users. The use of repetition of a disclosure index by the researchers is uncommon.

3. Legal framework for disclosure

In general, each and every country has its own regulatory framework that governs disclosure in corporate reports within that country. Bangladesh is not exception of it. Keeping in mind about the importance and obligation of corporate disclosure there are number of statues that govern the corporate disclosure of Bangladesh. In Bangladesh disclosure practices are mostly guided by the Companies Act 1994 (Government of Bangladesh, 1994), Securities and Exchange Rules 1987 (Government of Bangladesh, 1987), and the Accounting Standards adopted by the Institute of Chartered Accountants of Bangladesh (ICAB). Disclosure practices are also affected by a number of other statutes e.g. Bangladesh Industrial Enterprises Nationalization Order 1972, Banking Companies Act 1991(Government of Bangladesh, 1991), Insurance Act 1938 (Government of Bangladesh, 1938), Income Tax ordinance 1984 (Government of Bangladesh, 1984), etc.

The Companies Act 1994 provides the basic requirements for disclosure and reporting applicable to all companies incorporated in Bangladesh. The Act requires companies to prepare financial statements in order to reflect a true and fair view of the state of affairs of the company. The Securities and Exchange Commission (SEC), another regulatory body, requires all listed companies to comply with accounting standards promulgated by the Institute of Chartered Accountants of Bangladesh (ICAB), in addition to its own disclosure provisions. Disclosure provisions of the Security Exchange Rules are, in fact, restricted only to companies listed on the stock exchanges.

In a study by Ahmed and Nicholls (1994) it has been found that the level of corporate disclosure in Bangladesh is very poor and whatever information is available is not reliable. Unfortunately, there is no formal scientific research in Bangladesh to search the causes of poor corporate disclosure in Bangladesh. Karim and others (1998) worked on financial reporting in Bangladesh that looks regulatory framework with a conclusion that in developing countries, companies can be expected to disclose a piece of information if either there is an economic incentive to do so or such disclosure is required by law and the law is enforced to that extent that they (companies) firmly believe that nondisclosure would result in substantial penalty against them.

Stock exchange works as a watchdog for the corporate disclosure issues. Stock exchange authority governs disclosure in company reports as a part of listing requirements. Both of the stock exchanges in Bangladesh (DSE & CSE) established in 1954 and 1999 respectively monitor the disclosure level of listed companies and authorized to delist companies that do not comply with the regulations. Both stock exchanges are regulated under the Securities and Exchange Rules 1987 and the Companies Act. Under major categories listed companies must disclose the following information in compliance with SEC regulations: company history, outline of business, profile of top employees, profile of directors, information on capital, changes in share capital, number and types of shareholders, audited financial statements, consolidated statements, post-balance-sheet events, holdings in associate and subsidiary companies with relative percentage and payment of dividends.

In Bangladesh, the existence of audit committee was not mandatory in the earlier/previous years. But in the year 2006 Securities & Exchange Commission (SEC) provide some conditions relating to audit committee. SEC Notification No. SEC/CMRRCD/2006-158/Admin/02-08, Dated the 20th February, 2006 discussed several guidelines related to audit committees in several ways. This notification suggested that a company should have an Audit Committee as a subcommittee of the Board of Directors.

International Accounting Standard Committee (IASC) is a global authority that develops financial reporting standard across the world to maintain consistency in the disclosure level. IAS-30 is one of the standards of the IASC that deals with the disclosure of the financial statement of the financial institutions and it had been developed for reporting of banking institutions. The Institute of Chartered Accounts of Bangladesh (ICAB) had adopted IAS-30 in Bangladesh in 1999 and renamed as 'BAS-30'.

4. Hypothesis development

4.1 Firm's size

Firm's size plays a pivotal role and it is one of the major determinants of the level and extent of corporate disclosure. There are several theories that signify the importance of size in corporate disclosure. Agency theory suggested that larger companies have higher information asymmetry between managers and owners and, therefore, higher agency costs arising from such asymmetry. In order to reduce these agency costs, larger companies disclose more information than smaller companies. The cost of accumulating and generating certain information is greater for small firms than large firms. Small companies may not be able to afford such costs from their resource base Owusu-Ansah (1998). Larger companies might have sufficient resources to afford the cost of producing information for the user of annual report.

The size variables considered in these studies include sales, total assets, number of employees, and number of shareholdings. In the present study, the size of the company was determined by taking into account the total asset and the annual sales of the company. Sales as a proxy for size, is equal to net annual sales. Consistent with prior research, it is hypothesized that there is a significant association between company size and the extent of disclosure. Larger companies may tend to disclose more information than smaller companies in their annual reports due to their competitive cost advantage (Lang & Lundholm, 1993; Lobo & Zhou, 2001). However, some companies do cost benefit analysis to disclose corporate information. For example if disclosure costs are decreasing with firm size, there may be a positive relation between firm size and the amount of information disclosed. The hypothesis stands for:

H_1 = There is positive association between firm's size and level of corporate disclosure

4.2 Age

Age of the company is considered to be a critical factor to determine the level and extent of the disclosure in the annual reports. Aged companies are more likely to disclose more corporate affairs in their annual reports due to their experience and their willingness to maintain reputation and image in the market than that of less aged companies.

As a result there is expected to have a positive association between age of the company and the extent and level of their both mandatory and voluntary disclosure. To determine the impact of age on the voluntary and mandatory disclosure all of the companies are classified into three different classes based on their time of registration.

Time of registration	Category
Before January 1st, 1972	*'Very old'*
After January 1st, 1972 but before January 1st, 1986	*'Old'*
After December 31st, 1985	*'New'*

Source: Akhtaruddin (2005)

Owusu-Ansah (1998) explains why the extent of a company's information disclosure may be influenced by its age. He mentions three factors in this regard: younger companies may suffer competitive disadvantage; gathering, processing and disseminating information may be more costly and onerous for younger firms; younger companies may lack a 'track record' on which they can rely for public disclosure.

The resulted hypothesis is:

H_2 = Older firms are more likely to disclose more mandatory information than younger firms

4.3 Profitability

Profitability is another determinant of corporate disclosure. Sometimes profitable firms with a view to letting the outsiders make informed about their profit potentials tend to disclose more information than that of less profitable firms. Agency theory suggests that managers of profitable firms tend to disclose more information to support the prolongation of their positions and compensation arrangements (Inchausti, 1997). However, sometimes managers often do that to prove they are acting or using the firm's resource to increase the profit level of the company which is supposed to be consistent with the shareholder's expectation.

Signaling theory implies that when company performance is good, companies will be more inclined to signal their quality to investors (Inchausti, 1997; Watson et al., 2002). Political process theory argues that firms disclose more information in order to justify the level of profits (Inchausti, 1997). In addition, management of a profitable firm may wish to disclose more information to the public to promote a positive impression (Alsaeed, 2006). The empirical evidence, however, is mixed. H_3 asserts that:

H_3 = Firms with high profitability are more likely to disclose more information in their annual reports compared with firms with low profitability.

4.4 Industry type

Level and extent of corporate disclosure to some extent depends on the industry in which the firms belong. For example, banking sector's disclosure item may not be concurred with the items of firms in manufacturing industry. Usually manufacturing firms disclose more information than that of service firms (Cooke's (1989). For this study, companies have also been divided broadly into two categories: traditional and modern. Traditional companies are food, textile, jute, synthetic, paper, cement, and sugar. Modern companies, which tend to place use new technologies include engineering, pharmaceuticals, chemicals, and metal alloys.

The hypotheses drawn for this variable would be: A particular type of company discloses different amount of information than that of other types of company. For example, like manufacturing companies banks usually disclose more information in their annual report for the requirements of regulators. Thus, the hypothesis developed for the study is as follows:

H_4 = Modern companies disclose different level of disclosure than traditional companies.

5. Research design & methodology

It has been discussed above that the purpose of this paper is to determine the level and extent of both voluntary and mandatory disclosure of companies in Bangladesh. This paper also deals with the impact of several companies' characteristics (e.g. size of the company, age, profitability, and type of industry) on the level of disclosure measured by disclosure index (DIGI).

With a view to pinpointing the disclosure practice of the companies and to analyzing the data STATA v. 9.0 and Microsoft Excel have been used and the relationship among the variables are tested using the multiple regression.

5.1 Sample Selection

This study covers companies listed on the Dhaka Stock Exchange (DSE). At present there are 546 companies listed in DSE divided in 22 different categories. However, this study divides the companies into 11 major categories (banks, engineering, food and allied products, pharmaceuticals and chemicals, paper and printing, textile, cement, jute, insurance, and miscellaneous) which contain 246 companies. The study covers a data period of 2010 to 2013.

Data collection procedure was mainly annual report based. Table 1 shows the comparative distribution of the companies in the population and the sample. The actual sample represents about 21.9% of population of companies listed on the stock exchanges.

Table 1: Distribution of sample by industry type

Industry Type	Population		Sample		Sample % of population
	Number	%	Number	%	
Engineering	28	11.4	4	7.4	14.3
Food and allied product	18	7.3	3	5.6	16.7
Fuel and power	17	6.9	2	3.7	11.8
Jute	3	1.2	1	1.9	33.3
Textile	36	14.6	13	24.1	36.1
Pharmaceutical and chemicals	27	10.9	5	9.3	18.5
Paper and printing	2	0.8	1	1.9	50.0
Cement	7	2.9	2	3.7	28.6
Miscellaneous	9	3.7	7	13	77.8
Bank and NBFI	53	21.5	10	18.5	18.9
Insurance	46	18.7	6	11.1	13.0
Total	246	100.0	54	100.0	21.9

Source: Dhaka Stock Exchange

5.2 Construction of the disclosure index

With a view to pinpointing the levels and the extent of voluntary and mandatory disclosure in the annual reports of Bangladeshi companies, voluntary disclosure index (DIGI index) has been developed as a measure of disclosure levels in the annual reports. The study has been carried out to explore both the voluntary and mandatory disclosure. DIGI index is used to figure out the level of voluntary disclosure.

DIGI index consisted of 99 elements, classified into five categories with certain modifications related to the specific structure of the annual reports of Bangladeshi companies. Table 2 shows the distribution of 99 items of information across the annual report: business data items 9.09%, management analysis 2.02%, background about the company 46.46%, intangible asset 6.06%, and corporate governance & other useful information 36.36%.

Table 2: Distribution of DIGI index (Voluntary disclosure)

Category	# of items	%
Business data	9	9.09
Management analysis	2	2.02
Background about the company	46	46.46
Intangible asset	6	6.06
Corporate governance and other useful information	36	36.36
Total	**99**	**100.0**

Source: Disclosure index

Even though a firm has a number of sources to disclose information like press release, letters, mailing etc, annual report is considered to be the best way of dispatching information about the company to the outsiders. The information enclosed in the report usually differs from company to company. For instance, the items to be disclosed in case of manufacturing company might not be applicable to banking sectors or to insurance companies.

However, the disclosure index employed in this study is based mainly on the three regulatory sources in Bangladesh. They are, as previously stated, the Companies Act 1994, disclosure requirements of the stock exchanges, and the approved IASs. As each source is separate, so, most of the requirements of each source has been included in the disclosure index.

5.3 Scoring the disclosure items

There are two methods for determining the level of corporate disclosure: weighted and unweighted approaches (Cooke, 1989). In case of weighted approach each item is categorized based on the importance of the items to be disclosed. Each item is uniquely acknowledged but due to controversy of assigning weights of the item, this approach lack integrity. The unweighted method of calculation in disclosure index has been used because of the subjectivity associated with allocating weights to disclosure when weight method is applied Adelopo (2011). An unweighted index is defined as the ratio of the number of items a company actually discloses to the total that it could disclose. The total disclosure (TD) score thus arrived at for a company is additive as follows:

$$TD = \sum_{i=1}^{n} d_i$$

Where,
d = one if the item d_1 is disclosed; zero, if the item d_1 is not disclosed; n = number of items.
Rationale for using unweighted approach is that a major issue for the weighted approach is different user group may give weight the same items of information differently if they are asked to weigh the significance of various items. However due to the conflict of non- disclosed and non-applicable item this unweighted approach should be used with admonition as there is always confusion regarding the fact whether to assign a "0" for not disclosing a particular item when this item is not applicable for the firm.

This paper employed a systematic method of categorizing and analyzing the disclosure items. Here items of information are numerically scored on a dichotomous basis. The method analyses each category using a "yes/no" or (1, 0) scoring methodology. If there is information of subcategories (items), these subcategories will gain a score of 1, whereas a score of 0 will be awarded if no information subcategory is disclosed. The aggregate score for each company is determined by adding up scores of 1 (Al-Tu waijri, Christensen, & Hughes, 2004). The final disclosure score indexes for each category are calculated using the following formula:

$$X_1 = \sum_{\delta=1}^{mj} \frac{X_\delta}{N}$$

This index indicates the level of disclosure for a firm j, where N is the maximum number of relevant subcategories a firm may disclose and X_δ is equal to 1 if disclosed or 0 if not (Branco and Rodrigues, 2008).

5.4 Test of hypothesis

In order to test set hypotheses, descriptive statistic is used. Disclosure index has been analyzed using descriptive statistics with the aim to get insights into level and extent of voluntary disclosure of Bangladeshi companies. Apart from that, in the second part of this paper, multiple regression analysis method has been applied to test the impact of selected firm specific characteristics of Bangladeshi companies on the level of voluntary and mandatory disclosure, as well as relations between those characteristics and disclosure index.

In order to test the hypothesis this study used both non-parametric and parametric statistics. Cooke (1989) used these two approaches in his study. A non-parametric analysis was used for measuring the disclosures of an individual company based on indexes and the level of disclosure practices. This approach used chi-square. If the significance level of chi-square is less than 5% then the null hypothesis of no association between variables is rejected. Another approach used based on the mean of each category of company, is the contingency coefficient of the correlation. The contingency coefficient of the correlation along with chi-square is considered useful to measure association. The purpose of regression model is to find an analytical and mathematical connection between one dependent variable and $K \geq 2$ independent variables. The general form of a multiple regression model can be represented by the following equation

$$\hat{y} = \alpha + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_n x_n$$

In this model, $\hat{y}$ is dependent variable, α is the constant and it is defined as the expected value of the dependent variable when all independent variables are equal to zero. Regression coefficient β_n shows the average change in the dependent variable when the independent variable x_n increases by one unit, assuming that all other independent variables remain unchanged.
Based on this assumption the regression equation for this study to test the hypotheses is given below.

$$TDE = \alpha + \beta_1\, Size + \beta_2\, Age + \beta_3\, Profit + \beta_4\, Industry + \varepsilon$$

Where,
TDE= total disclosure score derived from each company
α= constant value
ε= error term
Table 3 shows the dependent and independent variables with their expected signs.

Table 3: Dependent and independent variables

Dependent variable	Independent variables	Expected signs
TDE (Total disclosure score)	Size	+
	Age	+
	Profit	+
	Industry	+

Source: Akhtaruddin (2005)

6. Results and discussion

6.1 Firm's characteristics and voluntary disclosure

Following Table 4 highlights the descriptive statistics of the main characteristics of DIGI index acquired on the sample of 54 Bangladeshi companies. This table emphasizes the extent and level of voluntary disclosure of the selected companies.

Table 4: DIGI index- Descriptive statistics

Parameters	Year			
	2010	2011	2012	2013
Number of observations	45	50	52	54
Mean	51.6	54	55.25	57.94
Standard Deviation	18.74	18.42	18.09	17.57
Median	56	59.5	60.5	62.5
Mode	65	65	65	63
Maximum	86	86	86	86
Minimum	7	7	7	7

Source: Author's estimation

According to the results presented in the table above, the average value of the voluntary disclosure in the annual report of selected Bangladeshi companies is 52 elements of 99 elements possible in 2010 which were 54, 55, and 58 in 2011, 2012, and 2013 respectively. The maximum level of voluntary disclosure was 86 elements, and the minimum is 7 elements in all of these years. The standard deviation of the sample was 18.74, 18.42, 18.09 and 17.57 respectively. Median of DIGI index were 56, 59.5, 60.5, and 62.5 respectively and it can be concluded that half of the companies in the sample published in the annual report less than the median elements, whereas the other half published more than median elements. Mode or the most frequent value of DIGI index in the sample was 65 elements in 2010 to 2012 and 63 elements in 2013. The difference in the number of observations was due to the availability of the data. Table 5 shows the measurement scale for the evaluation of the level and extent of voluntary disclosure. To evaluate the scale measurement from the descriptive statistics has been taken into consideration.

Table 5: Measurement scale for the evaluation of the level and extent of voluntary disclosure

Value of DIGI index	Description of rating scale
$DIGI_{min} \leq x < x_{mm}$	The level and extent of voluntary disclosure in the annual reports is *below average*
$x = x_{mm}$	The level and extent of voluntary disclosure in the annual reports is *average*
$x_{mm} < x \leq DIGI_{max}$	The level and extent of voluntary disclosure in the annual reports is *above average*

Note: $DIGI_{min}$– the lowest realized value of DIGI index; $DIGI_{max}$ – the highest realized value of DIGI index; x – value of DIGI index; x_{mm} – the average value of the highest and the lowest realized DIGI index, calculated as $(DIGI_{min} + DIGI_{max})/2$

Source: Zeljana Aljinovic Barac et al. (2014)

6.1.1 Testing the Hypothesis on the Level and Extent of Voluntary Disclosure in the Annual Reports of Bangladeshi Companies

Based on the early point of view, the statistical hypothesis that the level and extent of voluntary disclosure in the annual reports of companies in Bangladesh is below average or above average is tested. The conclusion on the level and extent of voluntary disclosure in the annual reports of Bangladeshi companies is based on pre-defined measuring scale (see Table 5). Thereby, it is necessary to calculate the average value of DIGI index.

Table 6: Results of DIGI index according to the descriptive rating scale

Descriptive rating scale	2010		2011		2012		2013	
	Companies	%	Companies	%	Companies	%	Companies	%
Below average	23	42.6	15	27.8	15	27.8	11	20.4
Average	0	0.0	0	0.0	0	0.0	0	0.0
Above average	31	57.4	39	72.2	39	72.2	43	79.6
Total	**54**	**100.0**	**54**	**100.0**	**54**	**100.0**	**54**	**100.0**

Source: Author's estimation

From the descriptive statistics in Table 4, the highest value of DIGI index is 86 elements, whereas the lowest value is 7. Thus, the x_{mm} is 46.5, and scores of DIGI index amounting to 46 and 47 elements can be categorized as "average" level and extent of voluntary disclosure in the annual report, while all scores between 7 and 46.5 elements have been categorized as below average and any scores in between 46.5 and 86 has been regarded as above average voluntary disclosure.

Based on the information in Table 6 it is apparent that 57.4% of the annual reports are rated as above average in 2010 which increased to 72.2%, 72.2%, and 79.6% in 2011, 2012, and 2013 respectively. That means due to the increased level of regulation and obligation companies are more willing to practice voluntary disclosure and transparency in their annual reports. Due to the increased competition along with the regulatory enforcement, companies are trying to be more transparent in their disclosure practice. As a result, companies disclose additional information relatively handsome scale with a view to keeping up transparency as shown in that study.

6.1.2 Testing the Hypothesis about the Relations between DIGI Index and Selected Characteristics of Companies in Bangladesh

In this part of the research it is hypothesized that the level and extent of voluntary disclosure in the annual reports measured by DIGI index depends on certain characteristics of Bangladeshi companies. Table 7 shows the model summary having LnTA and status of the company as predictors. Here LnTA- Natural log of total asset, and status of the company is the dummy variable where "0"- for traditional company and "1"- for modern company.

Table 7: Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error
1	0.447[a]	0.199	0.195	16.322
2	0.495[b]	0.245	0.238	15.885

[a] Predictors: (Constant), LnTA
[b] Predictors: (Constant), LnTA, Status of the company
[c] Dependent Variable: DIGI index

Source: Author's estimation

As can be seen from Table 7, the value of the correlation coefficient (r_2) is 0.495 and it shows a moderate ascending relationship between the variables in the model. The coefficient of multiple determination (r_2^2) is 0.245, which means that the model explains 24.5% of the variability of the dependent variable around its mean. The adjusted coefficient of determination is 0.238 and standard error of the estimate is 15.885.

Table 8: Regression coefficients

	Model	Parameters	Std. Error	β	t	Sig	Collinearity Statistics (VIF)
1	(Intercept)	25.432	4.331		5.87	0.000	
	LnTA	3.895	0.553	0.447	7.04	0.000	1.00
	(Intercept)	21.751	4.346		5.00	0.000	
2	LnTA	4.135	0.542	0.474	7.62	0.000	1.02
	Status	10.139	2.914	0.216	3.48	0.000	1.02

Note: Dependent variable: DIGI index

Source: Author's estimation

Table 8 shows the regression coefficients of models. In the first model LnTA is used as independent variable. In case of second model both LnTA and types of the industry in terms of status of the company have been used. There is no multicollinearity problem among these two variables as shown by the variable inflation factor (VIF).

Based on the outcome above the regression equation[1] stands for

DIGI= 21.751+4.135 LnTA+10.139 Status

The parameter β_0 = 21.751 is the intercept which indicates the expected value of disclosure index (DIGI) when all independent variables are equal to zero. The coefficient, β_1 for independent variable total asset (LnTA) is equal to 4.135 and shows that the level of voluntary disclosure in the annual report is significantly and positively associated with the size of the company measured by total assets. This means that if the variable LnTA increases by 1 unit, DIGI index increases by 4.135 units, *ceteris paribus*.

The hypothesis about the relationship between the status of the company and DIGI index is also supported given that the parameter, β_2 = 10.139 for independent variable status of the company is positive and statistically significant. This supports the hypothesis that modern companies are likely to disclose more information than that of traditional companies. The assumption about the relationship between profitability and DIGI index in this study is not supported because all profitability proxies (i.e. ROTA - return on total assets, ROS – return on sales) along with the age of the companies are estimated as statistically insignificant, and therefore, eliminated from the model.

So, it can be concluded that the level and extent of voluntary disclosure in the annual reports of Bangladeshi companies measured by DIGI index depends on the size of a company in terms of total asset and status of the company (type of industry) in which the company maneuvers and belongs to.

Table 9 depicts the descriptive statistics for mandatory disclosure. The mean and standard deviation have been measured aggregately. Disclosure index, net profit on total asset, and net profit on sales are measure in percentage form. Degree of variability in case of profitability is higher when it is measured in terms of return on sales. In case of company size the extent of variability is high in terms of total asset. However, mean disclosure in 50.62% with a standard deviation of 14.03%.

Table 9: Descriptive statistics

	Mean	Standard deviation	N
Disclosure index (%)	50.62	14.03	201
Age of the company (years)	25.69	16.12	201
Status of the company (dummy)	0.18	0.39	201
Total asset (million)	19,479.39	59,613.52	201
Size of annual sales (million)	2,679.32	5,589.85	201
Net profit on total asset (%)	10.66	87.21	201
Net profit on sales (%)	50.31	947.18	201

Source: Author's estimation

6.2. Firm's characteristics and mandatory disclosure

In that section of this paper firm's mandatory disclosure practice and its association with firm's characteristics has been explored. Table 10 demonstrates the corporate attributes and parameters from 2010 to 2013.

[1] OLS regression analysis with STEPWISE selection method was applied and the regression analysis includes all statistically significant variables; (LnTA and Status of the company).

Table 10: Corporate attributes and mandatory disclosure

Corporate attributes		Parameters	2010	2011	2012	2013
Age		Chi- square	3.98	4.64	4.89	3.94
		Significance	0.942	0.914	0.897	0.949
		Contingency Coefficient	0267	0.355	0.293	0.261
Status of the company		Chi- square	6.82	6.21	9.55	2.45
		Significance	0.234	0.286	0.088	0.782
		Contingency Coefficient	0.363	0.332	0.394	0.208
Size	Sales	Chi- square	25.41	42.895	39.79	46.17
		Significance	0.704	0.059	0.109	0.029
		Contingency Coefficient	0.601	0.679	0.658	0.678
	Total assets	Chi- square	29.11	35.41	33.15	36.59
		Significance	0.414	0.196	0.224	0.119
		Contingency Coefficient	0.626	0.644	0.624	0.636
Profitability	ROTA	Chi- square	44.41	35.28	37.39	41.22
		Significance	0.043	0.233	0.166	0.083
		Contingency Coefficient	0.704	0.643	0.647	0.658
	ROS	Chi- square	44.967	28.367	42.447	61.22
		Significance	0.038	0.549	0.065	0.000
		Contingency Coefficient	0.706	0.602	0.671	0.729

Source: Author's estimattion

Chi-square test suggests no significant association between company age, status, size in term of total asset and disclosure level in 2010, 2011, 2012, and 2013 congruent with the findings of Akhtaruddin (2005). It is apparent from the table that corporate size when measured by sales has moderate significant association with disclosure index but has significant association in 2013. Chi-square test demonstrates a significant association between profitability and disclosure level in 2010 which concurs with both Karim (1996) and Hossain (2000) who found a positive association between profitability and disclosure. Chi-square test suggests no significant association between profitability in terms of ROTA and disclosure level in 2011. Contingency coefficient shows a moderate degree of association between net profit on asset and disclosure practice in 2011. Chi-square test suggests marginally significant association between profitability and disclosure level in 2012. Contingency coefficient shows a moderate degree of association. This finding is similar to Akhtaruddin (2005). Chi-square test suggests a marginally significant association between profitability in terms of ROTA and disclosure level. Finding of this study coincides with the findings of Akhtaruddin (2005), Karim (1996) and Hossain (2000), Zubaidah and Koh (1999) who found a positive association between profitability and disclosure as a more profitable company could have disclosed more information in order to improve its image.

Another proxy used for profitability in this study is return on sales (ROS). This variable is used by many other studies Akhtaruddin (2005), (Hossain, 2000; Inchausti, 1997; Karim, 1996; Owusu-Ansah, 1998; Wallace & Naser, 1995; Wallace et al., 1994). Chi-square test suggests significant association between profitability and level of disclosure concurs with Zubaidah and Koh (1999).

However, chi-square suggests no significant association between profitability and disclosure level in 2011.Contingency coefficient suggests a relatively better association between these two variables whereas in 2012 there exists a marginally significant association between profitability and disclosure. However, in 2013 the association between these two variables is significant.

6.3 Multivariate test

Multiple regression has been carried out using ordinary least squares (OLS) estimates. Panel data has been considered in that case. The present study reveals that company age, industry type, and intercept have statistically significant effect on corporate mandatory disclosure. Where Akhtaruddin (2005) found company size, profitability, and the intercept had a statistically significant effect on the extent of mandatory disclosure, but at different levels.

Table 11

Regression Statistics	
Multiple R	0.457
R Square	0.209
Adjusted R Square	0.185
Standard Error	0.126
Observations	201

Analysis of Variance

	df	Sum of Squares	Mean Square	*F*	Significance F
Regression	6	0.825	0.137	8.582	0.000
Residual	194	3.109	0.016	-	-
Total	200	3.935			

Variables in the equation

	Unstandardized coef.		Standardized coef.		
	B	Std. error	β	*t*	Sig.
(Intercept)	0.421	0.018		23.298	0.000
Age	0.001	0.000	0.227	3.498	0.000
Sales	5.063^{-8}	0.000	0.087	0.715	0.475
TA	6.279^{-8}	0.000	0.181	1.351	0.178
Net profit on sales	0.002	0.003	0.124	0.765	0.444
Net profit on TA	-0.010	0.039	-0.136	-0.273	0.784
Industry type	0.105	0.023	0.292	4.434	0.000

Source: Author's estimation

The intercept, company age and status of the company are statistically significant at all levels of significance. For this model disclosure score has been used as the dependent variable. The disclosure score for each company is related to company characteristics, the independent variables for the study, such as age, status, size and profitability. The four company attributes were measured on a continuous scale. The explanatory power of the model is indicated by the adjusted R^2 which is 18.5%. The R^2 is 0.209, which indicates that 20.9% variability in disclosing information in the annual reports of the selected companies is explained by the company specific characteristics. The F statistic indicates that the model employed to explain the variations in mandatory disclosure in company annual reports is statistically significant at the predictable levels.

Based on the output above the regression equation for corporate mandatory disclosure stands for
Y= 0.421+0.001 Age+0.000 Sales+0.000 TA+0.002 ROS-0.01 ROTA+0.105 Status

It is apparent from the equation that company's age, size in terms of sales and total asset, industry type and profitability in terms of return on sales affect the corporate mandatory disclosure level positively and all of the variables exhibit the expected signs. The positive association between company size and mandatory disclosure is consistent with prior findings (see, Akhtaruddin, 2005; Ahmed & Nicholls, 1994; Cooke, 1989; Meek et al., 1995; Owusu-Ansah, 1998; Wallace & Naser, 1995). Lang and Lundholm (1993) also report that disclosure is higher for larger firms. It is argued that larger firms provide more information because they are likely to face lower cost of disclosure (Ho & Wong, 2001). A positive association between the age of the company and the level of disclosure is supported *($P <0.05$).* So, the hypothesis, H_2 , older firms are more likely to disclose more mandatory information than younger firms is supported which is consistent with the result of Owusu-Ansah (1998) who finds a positive association between company age and mandatory disclosure. He defines company age as the experience gained by public companies during the listing periods.The t-statistic of industry type is statistically significant demonstrates expected sign, indicating that it has effect on the mandatory disclosure practices of the sample companies which supports the study of Cooke (1989).

7. Conclusion and policy implications

The major intent of this study is to examine the level and extent of mandatory and voluntary disclosure made by listed companies in Bangladesh. This paper also analyses the firm specific characteristics and their impact on mandatory and voluntary disclosure. Findings indicate that company voluntary publish 55 items in average out of 99 possible. Moreover, about one fourth of the companies analyzed are categorized as "below the average". The explanatory analyses has shown that firm size in terms of total asset and status of the company significantly and positively affect the level and extent of voluntary disclosure in the annual report of Bangladeshi companies. On the other hand, profitability and company age were not found statistically significantly related to voluntary disclosure level. However in case of mandatory disclosure practice many corporate annual reports do not meet the disclosure requirements of the regulatory bodies in Bangladesh. On average, the sample companies disclose information on only 50.62% of the items asked for indicating poor compliance with the mandatory rules. This result is better than the findings of Hossain and Taylor (1998), where the mean score is 29.33%. This result is also better than the findings of Akhtaruddin (2005) where the mean score is 43.53%. This study examines the relationship between mandatory disclosure and four corporate attributes; i.e., company age, status, size, and profitability. Analysis reveals that the age of the company and industry type are considerably important factors for disclosure. The investigation support the hypothesis that old companies will provide more information than new companies as age affects the mandatory disclosure level positively and significantly and company status has effect on disclosure. However, company profitability in terms of ROTA and ROS and company size in terms of total asset and sales do not significantly affect the mandatory disclosure level. The dreary disclosure performance by Bangladeshi firms can be attributed to organizational culture, poor monitoring, and lapse in enforcement by the regulatory body. Disclosure decisions are culture-driven (El-Gazzar, Philip, Finn, & Jacob, 1999). Ho and Wong (2001) argue that in countries where the culture supports a high level of secrecy, managements become less transparent and are less likely to favor a high level of disclosure. Further analysis is required to impound cultural factors. With regard to regulations, Karim et al. (1998) suggest that at present they are ineffective when it comes to monitoring disclosure practices in Bangladesh.

Being the prime source of information annual report is considered to be vital. Based on the findings of the report some recommendations can be outlined for preserving the interest of investors, policy makers, financial analysts, and managers of the company.

- Bangladesh Securities and Exchange Commission (BSEC) can play as a watchdog for maintaining transparency as well as ensuring the corporate governance issues. It can enforce the firm's to disclose information that is considered to be relevant to protect the interest of investors otherwise DSE can delist the company.
- Findings show that companies disclose about half of the items they are supposed to disclose. Most of the companies disclose information regarding balance sheet items, income statements, and accounting policies which implies listed companies in Bangladesh place more emphasis on IASs disclosures.

Provision about disclosure of Statement of Sources and Application of Funds or a Statement of Cash Flow has not been mentioned in Companies Act 1994. However, IAS-7 adopted a cash flow statement which can be prepared either in direct or in indirect ways.

With a view to making the capital market of Bangladesh more liberated and cogent a free, transparent, regular, and accurate disclosure practice is essential. Protection of the interest of investors group and proving the investors with the right information are the primary goals of disclosure. Regulatory bodies of Bangladesh should take necessary steps to make sure that interests of different investors groups are maintained.

- An individual who has a direct interest in the annual reports of a company could bring a charge of non-compliance with the disclosure requirements.
- Corporate governance should be made much more effective with a view to protesting the interest stakeholders.
- Auditor's contribution is considered to be the base when questions come about the compliance of the accounting standards. Auditors have to state their independent opinion that the audited accounts give a true and fair view of the state of affairs of the company.

This study is confined to only 22% of the DSE listed companies within selected sectors. Further research can be done taking all the listed companies into considerations. Research can also be done taking both the listed and unlisted companies and comparing any discrepancies between them.

Appendix-A: Disclosure of index item

	Total items	%
Company Profile	47	9.18%
Highlights Statement	24	4.69%
Graphical Presentation	11	2.15%
Directors' Report	28	5.47%
Corporate Environmental Information	7	1.37%
Balance Sheet	29	5.66%
Income Statement	25	4.88%
Cash Flow Statement	17	3.32%
Retained Earnings Statement	7	1.37%
Accounting Policy Disclosure	22	4.30%
Inventory	25	4.88%
Property, Plant and Equipment	36	7.03%
Sundry Debtors/ Accounts Receivables	14	2.73%
Cash and Bank Balances	9	1.76%
Short-Term Loans	11	2.15%
Long Term Loans	15	2.93%
Share capital	12	2.34%
Borrowing Cost	7	1.37%
Breakdown of Expenses	6	1.17%
Trade Creditors	6	1.17%
Directors' Remuneration	7	1.37%
Productive Capacity and Actual Output	4	0.78%
Employee Information	16	3.13%
Important Ratios	7	1.37%
Forecast Information	7	1.37%
Investment	13	2.54%
Taxation	13	2.54%
Turnover	6	1.17%
Contingent Liability Disclosure	6	1.17%
Shareholding Data	11	2.15%
Remittance of Foreign Currency	5	0.98%
Other Disclosure	23	4.49%
Corporate Governance Guidelines	36	7.03%
Total	**512**	**100%**

Appendix-B: Items of DIGI index
Business data
1. Industry segment reporting
2. Important Ratios
3. Liquidity ratios
4. Profitability ratios
5. Price-earnings ratio
6. Debt-equity ratio
7. Cash flow ratios
8. Turnover ratios
9. Solvency ratios
10. Any material change(s) after the balance sheet date that may affect the financial position of the company

Management analysis
1. Statement of achievements of the year
2. Future outlook of the company

Background of the company
1. Name of the company
2. Address of corporate headquarters (registered office)
3. Location of factory or principal plants
4. Year of establishment
5. Year of incorporation as a limited liability company
6. Year of listing on the DSE and/or CSE
7. Brief history of the company
8. Name of Company Secretary
9. Name of the company's legal adviser
10. Company's Tax advisor
11. Company's audit firm(s)
12. List of company's bankers
13. List of insurers
14. Name of the Chairperson
15. Name of the CEO (if different from above)
16. Name of senior executives (other than CEO and/or Chairperson)
17. Brief resume of senior executives
18. List of directors
19. Directors' qualification
20. Directors' experience
21. Directors' affiliation with other organizations not related to the business
22. Directors' affiliation with other organizations related to the business
23. Chairperson with multiple directorships
24. CEO ownership
25. Graphical presentation of locations (location map)
26. Whether the financial statements cover the individual enterprise or group of enterprises
27. Audit committee list
28. Compensation committee list
29. Employment relations committee list
30. Management or executive committee list
31. Policy committee list
32. Management team
33. Mission statement
34. Vision statement
35. Values statement
36. Quality policies
37. Pictorial presentation of board members
38. Formal corporate governance statement
39. Organizational structure

40. Photograph of company activities
41. Photograph of last AGM
42. Nature and activities of company
43. County of incorporation
44. CEO /MD message
45. Changes in the nature of the company's business during the year
46. Changes in the company's subsidiaries or in the nature of their business

Intangible assets

1. Employee relations
2. Number of employees
3. Breakdown of employees by gender
4. Breakdown of employees by executive and non-executive
5. Breakdown of employees by skilled and unskilled
6. Breakdown of employees by line of business

Corporate Governance Guidelines

1. Number of directors is in between 5 and 20
2. At least 1/10th of the directors shall be independent director(s), subject to a minimum of one.
3. Independent director is appointed by the directors
4. Chairman of the board and CEO are different individuals
5. Directors report states that financial statements present true and fair view of results of operation, cash flow and changes in equity
6. Directors report states that proper books of accounts were maintained
7. Directors report states that appropriate accounting policies were applied
8. Directors report states that applicable IASs were adequately followed
9. Directors report states that internal control system is sound and effective
10. Directors report confirms company's continuation as a going concern
11. Directors' report highlights and explains significant deviations in operating results from last year
12. Directors' report summarizes last three years key operating and financial data
13. If dividend is not declared, directors report explains reasons thereof
14. Directors report discloses number of board meetings and attendance of directors
15. Directors' report discloses shareholding pattern by Parent/Subsidiary/Associated companies and other related parties
16. Directors' report discloses shareholding pattern by Directors, CEO, Company Secretary, CFO, Head of Internal Audit and their spouses and minor children
17. Directors' report discloses shareholding pattern by executives
18. Directors' report discloses shareholding pattern by shareholders holding more than 10% of voting interest
19. CFO, Head of Internal Audit and a Company Secretary were appointed
20. CFO and the Company Secretary attended board meetings
21. Audit committee works as a sub-committee of the Board of Directors
22. Audit committee is composed of at least 3 members
23. At least one independent director is part of the audit committee
24. As soon as term of a member is expired, another member is appointed
25. One member of audit committee acts as the Chairman of the committee
26. Chairman possesses professional qualification or knowledge and experience in accounting or finance
27. Audit committee reports to the Board
28. Audit committee reports immediately on conflicts of interests
29. Audit committee reports immediately on suspected or presumed fraud or irregularity
30. Audit committee reports immediately on suspected infringement of laws
31. Audit committee reports immediately on any other matter it thinks necessary
32. Audit committee reports to the SEC, if repeatedly ignored by the Board
33. Audit report is disclosed in the annual report, signed by the Chairman of the committee
34. External auditor is not engaged with the services: appraisal or valuation, financial system design and implementation, accounting services, broker-dealer services, internal audit or actuarial valuation
35. Directors report confirms compliance with a compliance checklist

Appendix-C: Selected Companies

Sl. #	Names of the companies	Industry
1.	BD Thai	Engineering
2.	Eagle Star	Textile
3.	City General Insurance	Insurance
4.	ICB	Financial Institutions
5.	Islami Bank	Banking
6.	IFIC Bank Ltd.	Banking
7.	Bangladesh Welding Electrodes	Miscellaneous
8.	Purabi General Insurance	Insurance
9.	BOC/Linde BD	Manufacturing
10.	Dulamia Cotton	Textile
11.	First Lease Finance	NBFI
12.	Dynamic Textiles Industries Limited	Textile
13.	Barakatullah Electro Dynamics Ltd	Power and fuel
14.	GSP FINANCE	NBFI
15.	Sandhani Life Insurance	Insurance
16.	Jamuna Bank	Banking
17.	Monno Ceramic Industries	Engineering
18.	Rangpur Dairy & Food Products Limited	Food and Allied
19.	Bangladesh Dyeing & Finishing	Textile
20.	Libra Infusions	Pharmaceutical
21.	The Dacca Dyeing & Manufacturing	Textile
22.	Information Service Network	Information technology
23.	Hakkani Pulp & Paper Mills	Paper and others
24.	Arbee Textiles Limited	Textiles
25.	Square Textiles	Textiles
26.	Keya Cosmetics	Manufacturing
27.	Northern Jute	Jute
28.	Shyampur Sugar Mills Limited	Food and Allied
29.	Bangladesh Zipper Industry	Textiles
30.	Marico.Bd	Pharmaceuticals
31.	Zahintex Ind.Ltd	Textiles
32.	Saiham Textile	Textiles
33.	Ambee Pharmaceuticals	Pharmaceuticals
34.	Chitagong Vegitable Oil	Food and Allied
35.	Heidelberg Cement	Cement
36.	Metro Spinning Limited	Fuel and Power
37.	Safko Spinning Mills	Manufacturing
38.	Active Pharma	Pharmaceuticals
39.	British American Tobacco	Textile
40.	Malek Spinning Mills limited	Tobacco
41.	Aramit Cement Limited	Cement
42.	Bangladesh Autocars Ltd	Engineering
43.	First Lease International	NBFI
44.	Bangladesh General Insurance Company(BGIC)	Insurance
45.	Dandy Dyeing	Textiles
46.	Square Pharma	Pharmaceuticals
47.	Dhaka Bank	Banking
48.	Ocen Containers	Miscellaneous
49.	Pioneer Insurance	Insurance
50.	Bengal Windsor	Engineering
51.	Continental Insurance	Insurance
52.	Modern dying and screen printing	Textiles
53.	IDLC	NBFI
54.	National Bank	Banking

References

1. Abd-Elsalam, O.H., & Weetman, P. (2003). Introducing international accounting standards to an emerging capital market: relative familiarity and language effect in Egypt. Journal of International Accounting, Auditing and Taxation, 12(1), 63-84
2. Ahmed, K., & Nicholls, D. (1994). The impact of nonfinancial company characteristics on mandatory compliance in developing countries: The case of Bangladesh. The International Journal of Accounting, 29(1), 60-77.
3. Ahmed, K.; Courtis, J.K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: A meta-analysis. *British Accounting Review*, 31(1):35-61.
4. Ahsan B. (1995), "The impact of non-financial company characteristics on mandatory disclosure compliance in developing countries: The case of Bangladesh", *The International Journal of Accounting,* 29(1).
5. Akhtaruddin, M. (2005), "Corporate mandatory disclosure practices in Bangladesh", *International Journal of Accounting* 40, 399-422.
6. Akisik, O.; Gal, G. (2011). Sustainability in businesses, corporate social responsibility, and accounting standards: An empirical study. International Journal of Accounting and Information Management, 19(3): 304-324. http://dx.doi.org/10.1108/18347641111169287
7. Aljifri, K. (2008). Annual report disclosure in a developing country: The case of the UAE. Advance in accounting, Incorporating Advances in International Accounting 24, 93-100.
8. Aljifri, K., & Hussainey, K. (2007). The determinants of forward-looking information in annual reports of UAE companies. Managerial Auditing Journal, 22(9), 881-894.
9. Alsaeed, K. (2006). The association between firm-specific characteristics and disclosure: The case of Saudi Arabia. *Managerial Auditing Journal*, 21(5): 476-496. Annual reports and firm characteristics in Spain', *Accounting and Business Research*, Vol. 25, No. 97, pp. 41-53.
10. Al-Tuwaijri, S. A., Christensen, T. E., & Hughes, K. E. (2004). The relations among environmental disclosure,
11. Archambault, J.J., & Archambault, M.E. (2003). A multinational test of determinants of corporate disclosure. The International Journal of Accounting, 28, 173-194.
12. Belkaoui, A., & Kahl, A. (1978). Corporate Financial Disclosure in Canada, Research Monograph 1. Canadian Certified General Accountants Association: Vancouver.
13. Bleck, A., & Liu, X. (2007). "Market transparency and the accounting regime", *Journal of Accounting Research* 45(2), 229-256.
14. Branco, M. C., & Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics,* 83, 685-701. http://dx.doi.org/10.1007/s10551-007-9658-z
15. Camfferman, K., & Cooke, T. (2002), "An analysis of Disclosure in the Annual Reports of UK and Dutch Companies", *Journal of International Accounting Research* 1, 3-30.
16. Cerf, A.R. (1961). Corporate Reporting and Investment Decision. Berkeley, University of California Press.
17. Chau, G.; Gray, S.J. (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*, 19(2): 93-109.
18. Chow, C.W., & Wong-Boren, A. (1987). Voluntary financial disclosure by Mexican corporations. Accounting Review, 533-541
19. Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. Accounting and Business Research, 19(74), 113–124.
20. Cooke, T. E. (1989). Voluntary corporate disclosure by Swedish companies. Journal of International Financial Management and Accounting 1(2), 174-195.
21. Cooke, T.E. (1991). 'An assessment of voluntary disclosures in the annual reports of Japanese corporations', *The International Journal of Accounting*, Vol. 26, No. 3, pp. 174-189.
22. Cooke, T.E. (1992). 'The impact if size stock market listing, and industry type on disclosure in the annual reports of Japanese listed companies', *Accounting and Business Research*, Vol. 22, No. 87, pp. 229-237.
23. Eccles, R. G., & Mavrinac, S. C. (1995). Improving the corporate disclosure process. Management Review, 11– 24. Environmental performance and economic performance: a simultaneous equations approach. *Accounting, Organizations and Society,* 29, 447-471. http://dx.doi.org/10.1016/S0361-3682(03)00032-1
24. Ghazali, N., & Weetman, P. (2006), "Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis", *Journal of International Accounting, Auditing and Taxation* 15(2), 226−248
25. Haniffa, R.M.; Cooke, T.E. (2002). Culture, corporate governance and disclosure in Malaysian corporations.

Abacus, 38(3): 317-349.
26. Hossain, M.; Hammani, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting, Incorporating Advances in International Accounting*, 25(2): 255-265.
27. Hossain, M.; Reaz, M. (2007). The determinants and characteristics of voluntary disclosure by Indian banking companies. Corporate Social Responsibility and Environmental Management, 14(5): 274-288.
28. I. Adelopo, "Voluntary disclosure practices amongst listed companies in Nigeria", *Advances in Accounting, incorporating Advances in International Accounting* No. 27, pp. 338–345, 2011.
29. Inchausti, B. (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. European Accounting Review, 6(1), 45 -68.
30. Kahl, A. & Belkaoui A. (1981). Bank Annual Report Disclosure Adequacy Internatianally. Accounting and Business Research, Summer, 189-196.
31. Karim, A.K.M.W., et al. (1998). Financial reporting in Bangladesh: The regulatory framework. Journal of Business Administration, 24(1 and 2), 57– 88.
32. Marston, C., & Polei, A. (2004), "Corporate reporting on the Internet by German companies", *International Journal of Accounting Information Systems* 5 (3), 285 – 311.
33. Martson and Shrieves P.J. (1991) "The use of disclosure Indices in Accounting Research: A review article," British Accounting Review, Vol.23, pp. 32-43.
34. McKinnon, J.L., & Dalimunthe, L. (1993). Voluntary disclosure of segment information by Australian diversified companies. Accounting & Finance, 33(1), 33-50.
35. McNally, G.M., Eng, L.H., Hasseldine, C.R. (1982). Corporate financial reporting in New Zealand: An analysis of user preferences, corporate characteristics and disclosure practices for discretionary information. Account. Bus. Res., 13, 11-20.
36. Meek, G.K., Roberts, C.B., and Gray, S.J. (1995). 'Factors influencing voluntary annual report disclosures by US, UK and Continental European multinational corporations', *Journal of International Business Studies*, Vol. 26, No. 3, pp. 555-572.
37. Naser, K. (1998). 'Comprehensiveness of on disclosure of non-financial companies: Listed on the Amman financial market', *International Journal of Commerce & Management*, Vol. 12, No. 3, pp.122-155.
38. Naser, K. Al-Khatib, K. and Karbhari, Y. (2002). 'Empirical evidence on the depth of corporate information disclosure in developing countries: The case of Jordan', *International Journal of Commerce & Management*, Vol. 12, No. 3, pp. 122-155.
39. Owusu-Ansah, S. (1998). The impact of corporate attributes on the extent of mandatory disclosure and reporting by listed companies in Zimbabwe. *The International Journal of Accounting*, 33(5): 605-631.
40. Schipper, K. (1991). Commentary on analysts' forecasts. Accounting Horizons, 5(4).
41. Singhvi, S.S.(1968). Characteristics and implication of inadequate disclosure: a case study of India. The International Journal of Accounting 3(2), 29-44.
42. Uyar, A.; KiliÇ, M. (2012a). The influence of firm characteristics on disclosure of financial ratios in annual reports of Turkish firms listed in the Istanbul Stock Exchange. International Journal of Accounting, Auditing and Performance Evaluation, 8(2): 137-156. http://dx.doi.org/10.1504/IJAAPE.2012.046603
43. Wallace, R. S. O. & Naser, K. (1995). Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. Journal of Accounting and Public Policy, 14(2), 311-368.
44. Wallace, R. S. O., Naser, K., & Mora, A. (1994). The relationship between the comprehensiveness of mandatory disclosure in the corporate annual reports and firm characteristics in Spain. Accounting and Business Research, 25(97), 41 -53.
45. Wang, K., Sewon, O., & Claiborne, C. (2008), "Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China", *Journal of International Accounting, Auditing and Taxation* 17, 14-30.
46. Watson, A.; Shrives, P.; Marston, C. (2002). Voluntary disclosure of accounting ratios in the UK. British Accounting Review, 34(4): 289-313