

## THE EFFECT OF TIMELINESS REGULATION OF CORPORATE FINANCIAL REPORTING: EVIDENCE FROM BANKING SECTOR OF BANGLADESH

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### ABSTRACT

*Timeliness of annual reports is an important attribute of their usefulness. There is a paucity of research about the timeliness of the published audited accounts of the banking sector companies in developing countries in general and audit delays in particular. This paper empirically examined the relationship between the disclosure score and audit delay in a developing country, Bangladesh. The objective of this study is to establish the impact of selected corporate attributes on audit delays in Bangladesh. In this study, I examine whether timeliness of corporate financial reporting in the banking sector has improved in Bangladesh following the creation of the Securities and Exchange Commission (SEC) in 1993, the enactment of the Companies Act in 1994, the amendment of the SEC Rules in 1997, and the Banking Companies Act, 1991. Using 25% of the population (12 banks) observations over a period of 5 years (2002-2006), I find that regulatory changes have not improved timeliness in corporate reporting in the banking sector of Bangladesh as measured by the extent of audit lag, AGM lag and total lag.*



*Timeliness, Bangladesh, Audit Lag, AGM Lag, Total Lag*

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## **INTRODUCTION**

Stock exchanges in different countries have certain requirements for listed companies to publish their annual audited accounts within a specified period after the end of their accounting period. In developed countries, the filing requirements for listed companies vary from 90 days (in the USA and New Zealand), four months in the case of Australian listed companies and six months (in the UK) after the balance sheet date (Davis & Whittred, 1980; Dayer & McHugh, 1975). In developing countries, Bahraini listed companies for example, are required to publish their annual reports within 165 days from the financial year-end (Abdullah, 1996), while in the case of India and Bangladesh the maximum time limit to prepare corporate annual reports or financial statements for presentation at the annual general meeting in six months and nine months respectively from the accounting year end (Hossain, 1998).

The objectives are two-fold. First, to measure the extent of audit lag, AGM lag and total lag of the sample banks under study. Second, to establish the impact of disclosure score on timeliness. There is a paucity of research about the timeliness of published audited accounts of companies in developing countries in general and a particular shortage of developing country studies of audit delay (Hossain, 1998). There is no study, which specifically examined the relationship between the extent of disclosure and the timeliness in corporate reporting in the banking sector in Bangladesh. The analysis in this chapter involves developing a regression model to explain the level of delay of the sample banks under study.

### **1. THE NATURE OF TIMELINESS**

The usefulness of published corporate reports depends on their accuracy and their timeliness. Timeliness was first identified by the American Accounting Association (AAA, 1954 and 1957) as one of the qualitative attributes of usefulness in accounting information. Subsequently, the Accounting Principle Board (APB) in the USA, the Institute of Chartered Accountants of England and Wales (ICAEW) followed the AAA path recognizing timeliness as one of the most important characteristics of financial statements. Timeliness requires that information should be made available to financial statement users as rapidly as possible (Carslaw & Kaplan, 1991) and it is a necessary condition to be satisfied if financial statements are to be useful (Davies & Whittred, 1980: 48-49).

There is evidence that there is a relationship between security prices and the timeliness disclosure (Givoy & Palmon, 1984; Chambers & Penman, 1984). It has been argued that the shorter the time between the end of the accounting year and publication date of accounting reports (Abdulla, 1996). Legal or other accounting regulations may not permit publication of financial reports unless they have been

certified by an external auditor. Even in the absence of such restrictions, managers of reporting firms may be unwilling to publish financial reports without audit certification due to agency cost considerations. Thus, publication of annual reports by companies may be delayed by the need is that accounts be audited. Time lag in financial report publication and audit delay are intertwined and frequently used interchangeably in the financial reporting literature. As a result, in many cases timeliness have actually dealt with audit delays. The length of the audit lag has been regarded as the '*single most important determinant of the timeliness of the earning announcements*' (Givoy & Palmon, 1982: 419). Audit delay is generally defined in these studies as the length of time from a company's financial year-end to the date of the auditor's report.

Timeliness has long been recognized as one of the qualitative attributes of general purpose financial reports (AICPA, 1973; APB, 1970; FASB, 1979). Empirical research on timeliness of financial reporting provides evidence that the degree of timeliness of information release has information content (Beaver 1968) and affects firm value (Chambers & Penman, 1984; Givoloy & Palmon, 1982; Kross & Schroeder, 1984; Schwartz & Soo, 1996). Recognizing the theoretical and practical importance of timely release of financial information, regulatory agencies around the world have set statutory maximum time limits within which public companies are required to issue audited financial statements to shareholders and other external users and file them with concerned regulatory bodies (for a summary of maximum allowable reporting lags in different countries, see Alford *et al.*, 1993: 188-190). Most organized stock exchanges have similar or more stringent reporting and filing requirements. In emerging economies, the provision of timely information in corporate report assumes more importance since other non-financial statement sources such as media releases, news conferences and financial analysts forecasts are not well developed and the regulatory bodies are not as effective as in Western developed countries (Wallace, 1993).

## **2. TIMELY FINANCIAL REPORTING- BANGLADESH PERSPECTIVE**

Time lag in financial report publication and audit delay are intertwined and used interchangeably in financial reporting literature. As a result, in most cases timeliness have actually dealt with audit delays. The long audit delay normally leads to an even longer publication delay as companies in Bangladesh is reluctant in calling the annual general meetings (AGM) of shareholders in years with poor financial performance and/or low or no dividend announcement prospects. Although the Companies Act requires all companies, listed and unlisted, to furnish their annual accounts before the AGM within nine months of expiry of their respective financial years, a significant portion of these companies do not comply with this requirement. Many companies do not submit their annual accounts with the Registrar of Joint Stock Companies for several years. Some companies are found to take up to seven years to present audited financial statements before the

AGM of shareholders (Karim *et al.*, 2006). The usefulness of the information disclosed in company annual reports (CARs) will decline as the time lag increases, and it has been argued by Abdulla (1996) that the longer the period between year end and publication of the annual report, the higher the chances that the information will be leaked to some interested investors.

Five major developments, directly or indirectly relevant to corporate financial reporting, took place in Bangladesh between 1993 and 1997 (Karim *et al.*, 2006). First, a Securities and Exchange Commission (SEC) was established with effect from 3 May 1993 under the SEC Act of 1993. The SEC Act, in its preamble, states that the SEC was established 'for the purpose of protection of interest of investors in securities, for the development of (securities) markets and for matters connected therewith or incidental thereto' (GOB 1993). One of the functions of the Commission, as specified by the SEC Act, is to call for information from issuers of securities. Although the SEC Act does not directly deal with the issue of timeliness of financial reporting, it empowers the Commission to issue new rules or amend existing rules, as it considers appropriate to improve the capital market and to ensure its smooth functioning.

Second, a new Companies Act was enacted in 1994 that came into force on 1 October 1995, replacing the Companies Act of 1913. The Companies Act 1994 preserved the provisions of the 1913 Act with regard to the 9-month time limit within which companies were required to furnish their financial statements before an AGM of shareholders. However, the new Act increases the penalty for non-compliance with this provision by ten times the penalty imposed by the old Act. The new Act provides for a penalty of up to Tk 5,000 (A\$200) on each director of the company for failure to comply with relevant provision.

A third development took place in October 1997 when the SEC amended the Securities and Exchange Rules (SER) of 1987 that required a listed company to prepare half-yearly financial statements within one month of the close of the first half-year of its accounting year and issue those statements to the stock exchange(s) in which its securities are listed, to holders of its securities, and to the Commission.

Fourth, the country's capital market saw an unprecedented boom and a subsequent collapse in stock prices during 1996-97. One of the reasons contributing to the unusual rise and fall in securities prices was due to artificial manipulation of securities prices by a number of securities dealers and issuers in the absence of timely provision of reliable financial information in the market.

Finally, after the stock market crash in 1996, the SEC has been insisting listed companies on holding regular AGMs and publishing up to date annual reports. The fact that some companies were found to hold up to 5 AGMs and publish financial statements of up to 5 consecutive years on the same day is most likely to be in

response to the SEC pressure. In the context of the above developments taking place in Bangladesh over the period 1993 – 1997, it is considered to be an ideal setting to study the impact of regulatory changes on timeliness of corporate financial reporting. In view of the above developments, it is expected that companies would provide more timely information for the following reasons:

- I. The creation of the SEC in 1993 would mean listed companies would come under the SEC oversight leading to improvement in all aspects of corporate financial reporting including timeliness;
- II. The increase in penalty for non-compliance to the time limit for holding the AGMs under the Companies Act 1994 could be expected to improve the overall timeliness in corporate financial reporting following enactment of the Act;
- III. The amendment of the SER in 1997 requiring publication of half-yearly financial statements within one month of the first half of the year should make it easy for companies to prepare annual financial statements sooner as they would already have prepared half-yearly financial statements;
- IV. In the aftermath of the biggest stock market crash in 1996-97, listed companies could be expected to be extra careful in maintaining and increasing shareholder confidence in the company and its management. They could also be expected to install internal audit and/or improve existing internal audits to improve accountability within the organization. Timely provision of financial information and regular holding of AGMs could be two of the ways management might want to signal their commitment to the shareholders.

In addition to the above, the steady increases in foreign investment into the country and greater degree of financial liberalization are expected to improve the timeliness of financial reporting in the country over time. This study focuses on one aspect of corporate financial reporting in banking companies – timeliness. The study aims to see whether the above-mentioned developments in the financial reporting regulatory environment have been successful in significantly reducing the time lag in publishing financial statements by banking sector in Bangladesh.

### **3. PRIOR RESEARCH**

During the last four decades the research literature on timeliness has become established in financial accounting. This literature has been reviewed to provide the background to formulation of the hypotheses which have been used in this study. As already noted, the first formal recognition of the importance of timeliness came in 1954 AAA (1954) and (1957). They observed that, '*Timeliness of reporting is an essential element of adequate disclosure*' (AAA, 1954; p.46). Subsequently, many researchers and professional bodies followed the AAA in acknowledging the role

of timeliness in corporate financial reporting theory and practice (see for example, Carlow & Kaplan, 1991; Givoly & Palmon, 1982; Curtis, 1976; Kenly & Staubus, 1972; Hendriksen, 1970; APB, 1970; Grady, 1965).

A number of empirical studies have been undertaken which seek to explain audit delay using variables representing selected corporate attributes. Typically most of these studies have used multivariate regression analysis and a brief review of some of the key studies follows.

Ahmed (2003) reports long delays in reporting to shareholders in three South Asian countries namely India, Pakistan and Bangladesh. Using a large sample of 558 company annual reports for the year 1997-1998 comprising 115 reports from Bangladesh, 226 reports from India and 217 reports from Pakistan, Ahmed finds that the total lag between the financial year end and holding the annual general meeting is, on average, 220 days, 164 days and 179 days in Bangladesh, India and Pakistan, respectively. In Bangladesh, Ahmed did not find any association between corporate characteristics and timely reporting.

Abdullah (1996) reported empirical evidence on timeliness for sample of annual reports of 26 Bahraini companies. He examines association between the time lag and a set of five determinants. His results show a significant negative relationship between timeliness of publication and the firm's profitability, size, and distributed dividend. However, the relationship between timeliness and industry membership was insignificant and the coefficient of the debt-equity ratio with timeliness had the wrong arithmetic sign.

Ng and Tai (1994) empirically examined the association between audit delay and ten company characteristics for listed companies in Hong Kong for the years 1990 and 1991. They obtain data from 393 firms listed on the Hong Kong Stock Exchange and their results showed that log of sales and degrees of diversification were significantly related to audit delay in both years. However, change in EPS was found to be significant only in 1990 and reporting of extraordinary items proved to be significant only in 1991.

Carslaw and Kaplan (1991) extended prior research of audit delays in New Zealand by seeking to capture both auditor and corporate attributes in their regression model. The results suggested that only two of nine explanatory variables were statistically significant. These were corporate size, which was found to be inversely related and existence of loss which was found to be directly related. Other variables studied but which proved statistically insignificant were industry, existence of extraordinary items, audit opinion, audit firm size, year-end, ownership (owner controlled vs. manager controlled), and debt proportion.

Ashton *et al.* (1987) examined the relationship between audit delay and 14 corporate attributes in the USA. Their sample included 488 US annual reports

(both public and non public) belonging to six companies in six different industries. The explanatory variables used in their model were total revenues, firm complexity (proxied by four variables), industry classification, public/non-public status, month of financial year end, quality of internal control, the relative mix of audit work performed at interim and final dates, the length of time the company had been a client of the auditor, profitability (proxied by two variables), and the type of audit opinion issued. The results tend to indicate that five variables were significantly related to the audit delay, and these were total revenues, one of the complexity measures, the mix of interim and final dates and the quality of internal control irrespective of the fact that they were publicly or non-publicly traded. Their regression model showed that an overall  $R^2$  of 0.265 with  $R^2$  for the financial and non-financial sub-samples at .310 and .388 respectively.

Whittred and Zimmer (1984) examined the association between time lag and a set of corporate attributes in Australia. Their study showed that the firms not facing financial distress take less time to publish annual reports than firms that are facing financial distress. Further, their findings tend to support their hypothesis that company management will strive to delay releasing bad news or to suppress information that might damage the company.

Givoly and Palmon (1982) found an improvement in the timeliness of annual reports of 210 companies listed on the New York Stock Exchange (NYSE) over a period of 15 years from 1960 to 1974. They focused on the abbreviated audited annual reports published in the earnings digest of *The Wall Street Journal* ahead of the full annual report. Corporate size and complexity of operations were used to explain timeliness. Reporting delays appeared to be more closely associated with industry patterns and traditions rather than with the company attributes studied. It was, however, found that bad news tended to be delayed and that the degree of market reaction to early and late announcements was differential. Late announcements appeared to convey less new information than earlier reports. They reported that time lags decreased over time. Sales as a proxy of size were found to be negatively related to the timeliness of annual report.

Gilling (1977) argued that Curtis's (1976) investigation failed to establish any statistically significant association between corporate attributes and reporting delays, because the lag, in his view, was essentially an auditing lag. So, Gilling asserted that auditor attributes should be examined instead of company attributes in order to find a meaningful explanation of reporting lag. Gilling studied 1976 annual reports of 187 New Zealand listed companies, and found that these companies are audited by 50 audit firms and approximately 69% were audited by the seven largest auditing firms. The average interval between balance day and the date of the auditors' report was 80 days in 1976 and 77 days in 1974. The mean reporting delay of companies audited by the leading audit firms was significantly less than that the companies audited by the other 43 firms. More importantly, the

mean time lag for the 20 overseas companies in the sample were relatively short at 53 days and for 24 public companies with assets over 50 millions dollars the mean delay was 70 days. He suggested that this is because of conscious scheduling of audit work by large public companies.

Courtis (1976) reported the results of the findings on 204 listed New Zealand companies for the year 1974. He examined the association of four corporate attributes including three measures of corporate size (proxied by book value of total assets, the dollar value of sales revenue and number of employees), age of the company, number of shareholders, and the pagination length of the annual report, with time lag in corporate report preparation and publication. The influence of business sector was also examined. He found that the average interval of time between balance date and date of annual general meeting was 18 weeks, twelve of which purport to be absorbed by audit process. He found that slow reporters tended to be less profitable as a group than fast reporters; and fuel and energy and finance companies tend to be fast reporters as specific groups while service industries and mining and exploration companies tended to be slow reporters as specific group. Mann-Whitney Z and U tests were used which revealed that none of the four corporate variables were statistically significant in explaining reporting lags across the whole sample. However, profitability and industry sector were found to be statistically significantly different between 'slow reporters' and 'fast reporters' sub samples.

Dyer and McHugh (1975) attempted to discover reasons for the delay in the publication of annual financial reports of Australian companies. Their model sought to establish the impact of selected corporate attributes on reporting delays of a sample of 120 companies randomly selected from companies listed on the Sydney Stock Exchange. Apart from taking time lag data from the annual reports, they distributed questionnaires to the controllers and auditors of the sample firms. The study revealed sixty six percent of the mean total lag was consumed in pre-audit delays and year-end audit examination. Of the three corporate attributes investigated, only corporate size appeared to account for some of the variations in total lags, but the relationship did not appear to be very strong. The relationship was, however, inverse as expected. Their results tend to support the hypothesis that there is a significant relationship between the time lag and the company's profitability.

#### **4. MEASURING TIMELINESS: AUDIT LAG, AGM LAG, AND TOTAL LAG**

Three measures of timeliness are defined: (1) audit lag, (2) AGM lag, and (3) total lag:

Audit lag: Audit lag means the interval of days between balance date and the date of the auditor's report. The interval of the number of days from the year-end to the



date recorded as the opinion signature date on the auditor's report. Or the open interval of the number of days from the year-end to the date recorded as the opinion signature date in the auditor's report. Audit delay represents the number of days elapsed between the balance sheet date and the date auditor(s) sign(s) the financial statements.

AGM lag: AGM lag means the interval of days between the date of the auditor's report and the date of the annual general meeting. The open interval of the number of days from the opinion signature date on the auditor's report to the date of settlement of annual general meeting (AGM). AGM lag represents the number of days elapsed between the date of signing auditor's report and the day on which the AGM is actually held.

Total lag: Total lag refers the interval of days between balance date and the date of the annual general meeting. The open interval of the number of days from the year end to the date of settlement of annual general meeting. Total lag represents the total interval time after balance date before the directors formally present financial results to the owner of the entry.

Audit lag and AGM lag subdivide total lag into two components: the interval of days it takes before audited accounting information becomes available for release (though the press), and the time it then takes management to organize all necessary activities to bring on the company's annual general meeting.

#### **Establish the impact of disclosure score on timeliness**

To test whether disclosure level of sample banks is affected by the timeliness of the bank's financial reporting, we have taken different measures of timeliness such as audit lag, AGM lag and total lag to regress them with disclosure score. Accordingly we have formulated different null hypotheses. The following specific hypotheses have been tested regarding timeliness.

*H<sub>1</sub>: Timeliness as measured by audit lag does not affect the disclosure score of the sample banks.*

*H<sub>2</sub>: Timeliness as measured by AGM lag does not affect the disclosure score of the sample banks.*

*H<sub>3</sub>: Timeliness as measured by total lag does not affect the disclosure score of the sample banks.*

*H<sub>4</sub>: There is no significant association between three measures of timeliness [viz., audit lag {AuL}, AGM lag {AgmL} and total lag {TotL}] and the extent of disclosure.*

*Table 1* **Regression Studies between Disclosure Score vs. Audit Lag (AuL)**

Year	R <sup>2</sup>	F ratios	Significance Level
Y_2002	.090	.985	.344
Y_2003	.520	10.826	.008
Y_2004	.069	.746	.408
Y_2005	.210	2.653	.134
Y_2006	.032	.328	.580

From the regression result we observe that values of R<sup>2</sup> are small in case of year 2002, 2004, 2005 and 2006 and the significance levels of the regression coefficient are above .05 for the said years. Further, we observe that values of R<sup>2</sup> are high in case of year 2003 and the significance levels of the regression co-efficient are below .05 of this year. So, our null hypothesis is rejected which means that timeliness as measured by AuL affects the disclosure score.

*Table 2.* **Regression Studies between Disclosure Score vs. AGM Lag (AgmL)**

Year	R <sup>2</sup>	F ratios	Significance Level
Y_2002	.237	3.111	.108
Y_2003	.039	.403	.540
Y_2004	.024	.250	.628
Y_2005	.009	.087	.774
Y_2006	.231	3.008	.114

From the regression result we observe that values of R<sup>2</sup> are small and the significance levels of the regression co-efficient are above .05. So, our null hypothesis is accepted at significance level .05, which means that timeliness as measured by AgmL does not affect the disclosure score. Further, we observe that values of R<sup>2</sup> are relatively high in case of year 2002 and 2006 and the significance levels of the regression co-efficient are below .12 of this year. So, our null hypothesis is rejected at significance level .12, which means that timeliness as measured by AuL affects the disclosure score.

*Table 3.* **Regression Studies between Disclosure Score vs. Total Lag (TotL)**

Year	R <sup>2</sup>	F ratios	Significance Level
Y_2002	.192	2.380	.154
Y_2003	.245	3.248	.102
Y_2004	.061	.650	.439
Y_2005	.136	1.580	.237
Y_2006	.190	2.348	.156

From the regression result we observe that values of  $R^2$  are small and the significance levels of the regression co-efficient are above .05. So, our null hypothesis is accepted at significance level .05, which means that timeliness as measured by AgmL does not affect the disclosure score. Further, we observe that values of  $R^2$  are relatively high in case of year 2002, 2003 and 2006 and the significance levels of the regression co-efficient is below .11 in case of year 2003 and regression co-efficient are below .16 in case of year 2002 and 2006. So, our null hypothesis is rejected at significance level .11 or at .16.

**Table 4. List of independent variables, their labels and expected signs and relationships in the regression**

<b>Variable Labels</b>	<b>Variables</b>	<b>Expected sign and relationship</b>
AuL	Audit Lag	AuL has a significant positive relationship with the level of disclosure
AgmL	AGM Lag	AgmL has a negative relationship with the level of disclosure
TotL	Total Lag	TotL has a negative relationship with the level of disclosure

**Regression Studies between Disclosure Score vs. Multiple Variables**

The goal of this chapter is to examine the association between the extent of information disclosure in published annual reports of and timeliness. Accordingly we have formulated null hypotheses ( $H_0$ ). The anticipated association is examined by that hypothesis. The multiple linear regression technique is used to test the two alternative hypotheses. To test whether disclosure level of sample banks is affected by multiple variables, we have taken the measures such as audit lag (AuL), AGM lag (AgmL) and total (TotL) to regress them with disclosure score.

**Table 5. Regression Studies between Disclosure Score vs. Multiple Variables**

<b>Year</b>	<b><math>R^2</math></b>	<b>F ratios</b>	<b>Significance Level</b>
y_2002	.238	1.403	.295
y_2003	.525	4.982	.035
y_2004	.070	.338	.722
y_2005	.211	1.202	.345
y_2006	.233	1.370	.302

From the multiple regression result we observe that values of  $R^2$  are small in case of year 2002, 2004, 2005 and 2006 and the significance levels of the regression co-efficient are above .05 for the said years. Further, we observe that values of  $R^2$  are

high in case of year 2003 and the significance levels of the regression co-efficient are below .05 of this year. So, our null hypothesis is rejected which means that timeliness as measured by Multiple variables affects the disclosure score.

**Multiple Regression Models**

Multiple linear regression techniques are used to test two alternative versions of each hypothesis. The model is created using UDI as the dependent variable.

$$UDI = \alpha + \beta_1 AuL + \beta_2 AgmL + \beta_3 TotL + \epsilon$$

Where UDI = total score received each sample bank under unweighted disclosure index;

$\alpha$  = the constant, and

$\epsilon$  = the error term.

*Table 6. Table showing the audit lag distribution for the whole sample*

S_Year	N	Maximum	Minimum	Mean	Std. Dev.	Median
2002	12	202	51	102	46.72	90
2003	12	179	69	121	40.86	114
2004	12	202	58	112	43.09	118
2005	12	137	53	95	28.51	101
2006	12	119	43	78	19.99	80
Total	12	202 Max	43 Min	508	179.16	502
Average	12			102	36	100

Table 6 presents the summary statistics of the audit lags for the five years under study using all listed banks. Table 13 shows that the mean audit lag over the 5 years period ranges from 95 days in 2005 to 121 days in 2003 with a mean delay 102 days for the entire population. The median ranges from 80 days in 2006 to 118 days in 2004 with a median of 100 days for the whole population.

*Table 7. AGM lag distribution for the whole sample*

S_Year	N	Maximum	Minimum	Mean	Std. Dev.	Median
2002	12	135	5	50	43.71	35
2003	12	240	0	61	70.90	52
2004	12	97	0	34	34.04	23
2005	12	92	0	26	27.73	20
2006	12	118	0	34	39.68	20
Total	12	240 Max	0 Min	205	216.06	150
Average	12			41	43	30

Table 8 suggests that banks take a further average period of 5 days to held the AGM and a further average period of 0 days to hold the AGM from the date of auditor’s signature. Banks take an average of 26 days (in 2005) to 61 days (in 2003) with a population average of 41 days to hold the AGM from the date of auditor’s signature. The median distribution shows that from 20 days in 2005 and in 2006 to 52 days in 2003 with a median of 30 days for the whole population.

**Table 8. The total lag distribution for the whole sample**

S_Year	N	Maximum	Minimum	Mean	Std. Dev.	Median
2002	12	304	71	152	80.46	118
2003	12	352	79	182	87.66	162
2004	12	259	58	146	67.46	152
2005	12	188	53	121	42.29	127
2006	12	213	43	113	51.93	96
Total	12	352 Max	43 Min	713	329.80	655
Average	12			143	66	131

Table 8 shows the total lags – time between financial year end and holding of the AGM. This lag could be compared with the statutory maximum of 270 days (9 months) allowed by the Companies Act 1994. Table 7.14 suggests that banks take a further maximum period of 352 days to hold the AGM and a further maximum period of 188 days to hold the AGM from the date of year-end. Extreme maximum delay can be observed in 2002 (304) and in 2003 (352).

As the table 8 shows the mean total delay 143 days for the entire population. Extreme mean delays can be observed in 2003 (182). The medians show that from 96 days in 2006 to 162 days in 2002 with a median of 131 days for the whole population. From the distribution tables, taking them into account, we can comment that the audit and AGM lag situation is not satisfactory.

**Correlation analysis**

To examine the correlation between audit lag, AGM lag and total lag, *Spearman Rank Correlation* coefficients (*r*) were computed. Correlation matrixes of all the values of *r* for the explanatory variables along with the dependent variables was constructed for the sample years under study and are shown in Tables 15, 16, 17, 18 and 19 respectively.

**Correlation analysis for the year 2002**

The *Spearman Rank* Correlation coefficients of the correlation between the (total lag and audit lag) and (total lag and AGM lag) variables is higher than the coefficient of the correlation between disclosure score and the reported lags. Table 15 suggests that the correlation between the total lag and audit lag and between the

total lag and AGM lag variables may be an issue while collinearity across the other variables is not. Table 15 shows noteworthy collinearity ( $p \leq 0.01$ ) between the total lag and audit lag variables (.935), between total lag and AGM lag (.808), and collinearity ( $p \leq 0.05$ ) between audit lag and AGM lag variables (.688). However, Kaplan (1982) suggests that multicollinearity may be a problem when the correlation between independent variables is 0.90 or above. However, Emory (1982) considered more than 0.80 to be problematic. It is evident from the table that the magnitude of the correlation between variables seems to indicate severe multicollinearity problems.

**Table 9. Spearman Rank Correlation Matrix for the year 2002**

		DS	AUL	AGML	TOTL
DS	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
	N	12			
AUL	Correlation Coefficient	.517	1.000		
	Sig. (2-tailed)	.085	.		
	N	12	12		
AGML	Correlation Coefficient	.516	.688*	1.000	
	Sig. (2-tailed)	.086	.013	.	
	N	12	12	12	
TOTL	Correlation Coefficient	.501	.935**	.808**	1.000
	Sig. (2-tailed)	.097	.000	.001	.
	N	12	12	12	12

\* Correlation is significant at the .05 level (2-tailed).

\*\* Correlation is significant at the .01 level (2-tailed).

### **Correlation analysis for the year 2003**

The *Spearman Rank Correlation* coefficients of the correlation between the (total lag and audit lag), (total lag and AGM lag) and (disclosure score and audit lag) variables is higher than the coefficient of the correlation between disclosure score and the AGM and total lags and between the audit lag and AGM lag. Table 16 suggests that the correlation between the total lag and audit lag and between the total lag and AGM lag and disclosure score and audit lag variables may be an issue while collinearity across the other variables is not. Table 16 shows a noteworthy collinearity ( $p \leq 0.01$ ) among certain variables between total lag and audit lag variables (.736), between total lag and AGM lag variables (.810) and between disclosure score and audit lag variables (.722). It is evident from the table that the magnitude of the correlation between variables seems to indicate multicollinearity problems.

Table 10. Spearman Rank Correlation Matrix for the year 2003

		DS	AUL	AGML	TOTL
DS	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
	N	12			
AUL	Correlation Coefficient	.722**	1.000		
	Sig. (2-tailed)	.008	.		
	N	12	12		
AGML	Correlation Coefficient	.148	.310	1.000	
	Sig. (2-tailed)	.646	.326	.	
	N	12	12	12	
TOTL	Correlation Coefficient	.434	.736**	.810**	1.000
	Sig. (2-tailed)	.159	.006	.001	.
	N	12	12	12	12

\*\* Correlation is significant at the .01 level (2-tailed).

#### Correlation analysis for the year 2004

The *Spearman Rank Correlation* coefficients of the correlation between the (total lag and audit lag), (total lag and AGM lag) and (AGM lag and audit lag) variables is higher than the coefficient of the correlation between disclosure score and the reported lag variables. Table 17 suggests that the correlation between the total lag and audit lag and between the total lag and AGM lag and AGM lag and audit lag variables may be an issue while collinearity across the other variables is not. Table 17 shows a noteworthy collinearity ( $p \leq 0.01$ ) among variables between total lag and audit lag variables (.865), between total lag and AGM lag variables (.923) and between AGM lag and audit lag variables (.724). It is evident from the table that the magnitude of the correlation between variables seems to indicate severe multicollinearity problems.

Table 11. Spearman Rank Correlation Matrix for the year 2004

		DS	AUL	AGML	TOTL
DS	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
	N	12			
AUL	Correlation Coefficient	.298	1.000		
	Sig. (2-tailed)	.347	.		
	N	12	12		
AGML	Correlation Coefficient	.316	.724**	1.000	
	Sig. (2-tailed)	.317	.008	.	
	N	12	12	12	
TOTL	Correlation Coefficient	.203	.865**	.923**	1.000
	Sig. (2-tailed)	.527	.000	.000	.
	N	12	12	12	12

\*\* Correlation is significant at the .01 level (2-tailed).

**Correlation analysis for the year 2005**

To examine the correlation between the disclosure score and the reporting lag variables, the *Spearman Rank Correlation* coefficients ( $r$ ) were computed for the year 2005. A correlation matrix of all the values of  $r$  for the explanatory lag variables along with the dependent variables was constructed and is shown in Table 18. The *Spearman Rank Correlation* coefficients of the correlation between the total lag and audit lag variables is higher than the coefficient of the correlation between every other variables. Table 18 shows a noteworthy collinearity ( $p \leq 0.01$ ) among variables between total lag and audit lag variables (.719). The observation regarding Kaplan (1982) and Emory (1982) made in section 7.11(a) above again apply and it is evident from the Table 18 that the magnitude of the correlation between variables seems to indicate no severe multicollinearity problems..

*Table 12. Spearman Rank Correlation Matrix for the year 2005*

		DS	AUL	AGML	TOTL
DS	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
	N	12			
AUL	Correlation Coefficient	.291	1.000		
	Sig. (2-tailed)	.359	.		
	N	12	12		
AGML	Correlation Coefficient	.151	.074	1.000	
	Sig. (2-tailed)	.640	.820	.	
	N	12	12	12	
TOTL	Correlation Coefficient	.350	.719**	.642*	1.000
	Sig. (2-tailed)	.264	.008	.024	.
	N	12	12	12	12

\*\* Correlation is significant at the .01 level (2-tailed).

\* Correlation is significant at the .05 level (2-tailed).

**Correlation analysis for the year 2006**

The *Spearman Rank Correlation* coefficients of the correlation between the (total lag and audit lag) and (total lag and AGM lag) variables is higher than the coefficient of the correlation between disclosure score and the reported lags. Table 19 suggests that the correlation between the total lag and audit lag and between the total lag and AGM lag variables may be an issue while collinearity across the other variables is not. Table 19 shows noteworthy collinearity ( $p \leq 0.01$ ) between the total lag and audit lag variables (.828), between total lag and AGM lag (.942), and collinearity ( $p \leq 0.05$ ) between audit lag and AGM lag variables (.624). It is evident from the table that the magnitude of the correlation between variables seems to indicate severe multicollinearity problems.



Table 13. Spearman Rank Correlation Matrix for the year 2006

		DS	AUL	AGML	TOTL
DS	Correlation Coefficient	1.000			
	Sig. (2-tailed)	.			
	N	12			
AUL	Correlation Coefficient	.284	1.000		
	Sig. (2-tailed)	.372	.		
	N	12	12		
AGML	Correlation Coefficient	.193	.624*	1.000	
	Sig. (2-tailed)	.548	.030	.	
	N	12	12	12	
TOTL	Correlation Coefficient	.291	.828**	.942**	1.000
	Sig. (2-tailed)	.359	.001	.000	.
	N	12	12	12	12

\* Correlation is significant at the .05 level (2-tailed).

\*\* Correlation is significant at the .01 level (2-tailed).

## CONCLUSION

This study reports the results of an empirical examination of the association between financial reporting timeliness and disclosure score. Three measures of timeliness are used. One, in terms of the number of days it takes a company to have the audit completed, the second the number of days it takes a bank to hold its AGM since the date of its fiscal year audit completed, and finally, the number of days it takes a bank to hold its total since the date of its fiscal year-end. Statistical analyses are carried out on the impact of disclosure score on timeliness.

Results show that AGM, and total delays are not associated with disclosure score, i.e., there has been no significant positive relationship in corporate timeliness in reporting with the disclosure scores in reporting during the period under study. Though audit lag has the significant positive relationship.

During the post-regulatory period i.e., post- 'BRPD\* circular- 3' period, timeliness has deteriorated significantly which suggests that regulatory changes have failed to bring about improvement in the quality of financial reporting of banking sector in Bangladesh with respect to timeliness. The findings of this study can be used in the debate on the efficacy of regulatory pressure on financial reporting of banking sector in Bangladesh. The regulatory changes through BRPD circular brought about the banking sector in Bangladesh throughout the study period have been substantial. It was expected that the change would improve the age-old problem of chronic publication delay in corporate financial reporting of banking sector in the country. While the average publication delays have reduced by year.

The regression models of disclosure score formulated here are identical to identify the relationship between disclosure score and timeliness attributes in the sample banks. The inclusion of the timeliness attributes used in the regression models has been discussed. The results suggest that the explanatory variables used in the studies of timeliness proved to be significantly negatively associated with disclosure score. AGM lag and total lag found not to be significantly associated with disclosure score. Other variable 'audit lag' failed to establish significant positive relationship with the disclosure score. From the multiple regressions result shows that only for the year 2003 timeliness attributes affects the disclosure score and in case of year 2002, 2004, 2005 and 2006 the timeliness attributes does not affect. From the results of this study the following conclusions can be drawn. Firstly, there appears to be an unusually audit delay made by the Bangladeshi listed banking companies soon after the balance sheet date. The average interval of time between balance sheet date and the date of auditor's report is 3.4 months (the mean audit lag over the 5 years period ranges from 95 days in 2005 to 121 days in 2003 with a mean delay 102 days for the entire population). Although the minimum audit delay is low (43 days), the average audit lag is 102 days (see Table 13) as against approximately 40 days after their clients' balance sheet dates in the USA, and approximately 80 days in the case of the listed companies in New Zealand and Australia. So, banking companies in Bangladesh are taking relatively more time to complete audit of their accounts. As a result the appeal of the information provided by the bank annual reports can not help the users to take their decision in time if it takes another 102 days to arrange annual general meeting in another 41 days (see Table 14 and 15). With regard to timeliness as a qualitative objective of financial statements, this evidence can be regarded as unsatisfactory.

The findings of this study may be generalized after taking into consideration its limitation. The present research considers only the annual reports for listed banking companies. This study does not consider non-listed or non-financial or manufacturing companies. Further research can be undertaken to measure audit delay longitudinally in company characteristics (multi groups of companies) to determine whether the trend of audit delay has improved over time. Such a study would provide additional insights on the underlying causes for the audit delay in developing countries in general and in Bangladesh in particular. However, if anyone includes listed non-financial companies in the sample, can attempt to examine the relationship between audit delay and industry type i.e., non-financial as '1' and financial as '0'. The results may be different if the number of company characteristics was increased or another set of variables were examined. Although the sample includes 12 listed banks (25% of the population) in Bangladesh is reasonable, further research can be undertaken with a larger sample. This might be useful with respect to the stability of the regression equation.

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