Disclosure of Financial Reporting and Firm Structure as a Determinant: A Study on the Listed Companies of DSE

Alim Al Ayub Ahmed

Abstract

The paper examines the effect of firms' structure on the financial reporting quality of Bangladesh quoted manufacturing firms using assets, leverage and share dispersion and residuals of modified ERO model as proxies of firm's structure and financial reporting quality respectively. The data is extracted from 12 sample firms representing all quoted manufacturing companies in Bangladesh as the population of the study. Multiple regressions are used as a tool of analysis for the study. The result reveals a positive strong relationship between firm structure and financial reporting quality of quoted manufacturing firms in Bangladesh. It is therefore, recommended among others that the regulators should enforce more on the financial statements disclosure and transparency among companies quoted on the DSE as to ensure a higher quality of financial reporting.

Keywords: Determinants, Financial Reporting Quality, Firm Structure, Bangladesh

JEL Classification Code: M41, M42, M48, M49

Introduction

Accounting information is relevant if it is capable of influencing a decision maker by helping him/her to form predictions about the outcomes of past, present, and future events or to confirm or correct prior expectations. In order for information to be relevant, it must be timely, and it must have predictive value or feedback value or both. Financial statements should always provide reliable information to assist users in decision making. The statement should disclose relevant, reliable, comparable and understandable information. Reliability has to do with the quality of information that assures that information is reasonably free from error and bias and faithfully represents what it made to represent. An annual report can never be completely free from bias, since economic phenomena presented in annual reports are frequently measured under conditions of uncertainty. Many estimates and assumptions are included in the annual report. Although complete lack of bias cannot be achieved, a certain level of accuracy is necessary for financial reporting information to be decision useful (IASB, 2008). Therefore, it is important to examine the arguments provided for the different estimates and assumptions made in the annual report (Jonas and Blanchet, 2000). If valid arguments are provided for the assumptions and estimates made, they are likely to represent the economic phenomena without bias. Accounting information is reliable to the extent that users can depend on it to represent the economic conditions or events that it purports to represent. Reliability has the qualities of neutrality, representational faithfulness and verifiability.

*Assistant Professor, Faculty of Business, ASA University Bangladesh
Verifiability on the other hand means the ability through consensus among measurers to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias. It has three key aspects namely; consensus among observers, assurance of correspondence to economic things and events then, direct and indirect verification (Johnson 2005).

However, for financial statement to be understood clearly, the presentation should not be misleading or ambiguous. Users should be able to understand the information presented without undue effort according to International Accounting Standards (IAS) 1. To achieve this, the annual reports should contain full disclosure and higher level of transparency. As Thompson and Yeung (2002) stressed that for a company to be transparent, disclosure means providing a full and frank account of a company’s activities. In addition, as far as corporate transparency is concerned, it should be defined as the widespread availability of relevant, reliable information about the periodic performance, financial position, investments opportunities, governance, value and risk of publicly traded firm (Bushman and Smith, 2003). Comprehensive disclosure of financial statement has been a worldwide issue for a long decade. The income statement is important because it reports on the operating performance of the company. The greater the transparency of income statement the more useful it will be for current and potential investors to make investment decision. In other words, the more the companies disclose, concerning the figures contained in the financial statement, the greater is the level of transparency. The aim of financial reporting is to promote transparency and deliver high quality annual report to enhance comprehensive disclosure. This has contributed to the accounting standards setting and laws regarding financial reporting.

The study therefore centered on investigating whether financial reporting quality of quoted manufacturing firms in Bangladesh is likely to be influenced by their level of leverage, asset size and shares dispersion. This paper examines the effect of the determinants of firm structure on the financial reporting quality in Bangladeshi quoted manufacturing firms. The examination of such determinants extends the theories and models which have been examined in voluntary and statutory reporting. The results of our analysis indicate that size, spread of shareholding (Share Dispersion) and leverage are the primary determinants of firm structure. However, we hypothesize that assets, leverage and share dispersion have no significant effect on the financial reporting quality of quoted manufacturing firms in Bangladesh.

Study of disclosures begins with research done by Cerf (1961). He constructed disclosure index by specifying and weighing some related items which appeared in annual reports. The index scores were positively correlated with firm characteristics namely asset size, number of shareholders and profitability (Singhvi and Desai 1971). Buzzby (1974) was consistent with other researcher but add listing status as one of the variable to explain disclosure level. Disclosure indexes tend to be based upon lists of selected items if accounting information which may be disclosed in corporate annual reports and seek to measure the extent of disclosure by using numerical weights on items of accounting information. Extensive accounting literature relating to the use of disclosure indexes by way of measuring the quality of information in the financial statements vary among different studies. Inchausti (1997) reported that in some studies, only voluntary disclosures were considered (Chow and Wong-Boren, 1987; Firth, 1979; Raffourner, 1995) while in other studies rating for both compulsory and voluntary items was included in an
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index (Cerf, 1961, Choi, 1973, Chow and Wong-Boren, 1987). Financial disclosure in Bangladesh remains weak compared to many advanced jurisdictions. This resulted in hampering of the growth of efficient equity markets. A common complaint among investors in Bangladesh is that financial information on company performance is either unavailable or, if provided, lacks reliability.

This paper examined transparency of information in the annual reports for a sample of quoted manufacturing companies in Bangladesh. The motivation for the study also hinged on a number of reasons. Bangladesh is the largest market in Asia by virtue of her size; she also plays significant and dominant roles in the economics and politics of the region. Improvements in our insight on this issue are crucial for a more transparent global market where cross listing and cross border activities are growing. The importance is also more highlighted in the case of harmonization of standards and the impact of accounting standard differences on value relevance of the information in the financial statements for different users.

Researches on value relevance of financial reporting are motivated by the fact that quoted companies use financial statements as one of the major medium of communication with their equity shareholders and public at large. Further, lot of hard work is done by stock market regulators and accounting standard setters in improving the quality of financial reporting and increasing the transparency level in financial reporting. The level of researcher interest in this area directly reflects the impact that the adequacy of financial report disclosure i.e. quality has on decisions making by the various users of financial statements of quoted manufacturing firms in Bangladesh. The findings of this study are likely to have particular positive implications for regulators responsible for ensuring high quality financial reporting such as Securities and Exchange Commission of Bangladesh. In addition, the financial analysts, stock market stakeholders and shareholders and management of Bangladeshi manufacturing firms stand to benefit tremendously from the outcome of this research.

The remainder of this paper is organized as follows. The next section theory and evidence provides a review of the literature on the theoretical and empirical findings of financial reporting in general and quality of disclosure in particular. Section 3 describes the research design and data. The results and findings of the study are then presented and discussed. Summary and conclusions, including areas for future research are presented in the final section.

**Theory and Evidence**

The investigation of the determinants of disclosure in the financial statement represents one of the most systematic and sustained research efforts in the financial reporting literature. Previous studies have rightly examined disclosure practices in different socio-economic and political settings, to improve our knowledge of the dynamics of disclosure practices. This paper addresses disclosure practices in a developing economy—Bangladesh.

Cerf’s (1961) inaugural empirical study of factors influencing the adequacy of US corporate annual report disclosure laid the foundation for a succession of studies conducted in numerous countries (e.g., Bangladesh (Ahmed and Nicholls, 1994; Ahmed, 1996), Hong Kong (Tai, Au-Yeung, Kwok and Lau 1990); Lau, 1992; Wallace and Naser, 1995), India (Singhvi, 1968;
Marston and Robson, 1997), Japan (Cooke, 1991, 1992, 1993), Mexico (Chow & Wong-Boren, 1987), New Zealand (Courtis, 1979; McNally, Lee and Hasseldine 1982; Hossain, Perera and Rahman 1995), Sweden (Cooke, 1989a, 1989b), UK (Firth, 1979); USA (Singhi and Desai, 1971; Buzby, 1975; Malone, Fries and Jones 1995); and Bangladesh (Okike, 1999, Al-faki, 2006; Okike, 2007; Kajola, 2008; Adelopo, 2010, Akintola and Chris, 2010). Variables hypothesized to determine disclosure levels in these studies include among others firm size, shares dispersion and leverage. Undoubtedly, differences exist in disclosure practices across countries due to a range of reasons (Nobes, 1998) some of which include differences in historical antecedents, legal, economic and political trajectories and institutional differences (Nobes, 1998; Ball, Kothari and Robin, 2000; Ding, Hope, Jeanjean and Stolowy, 2007; La Porta, Lopez-de-Silanes, and Shleifer, 2008).

Financial reporting disclosure may be either mandatory or voluntary. Mandatory disclosure may arise from a number of sources, such as stock exchange listing requirements, professional promulgations, and statutes. Voluntary disclosure represents disclosure in excess of mandatory disclosure, and in efficient markets is likely to be provided where the marginal benefits to the provider exceed the marginal costs. Adelopo, (2010) found a significant positive relationship between voluntary disclosure and firm size, measured as the natural logarithm of total asset. Significant positive relationship was also found between market based definition of firm performance and voluntary disclosure. Percentage of block share ownership and percentage of managerial share ownership were found to be negatively related to firm disclosures.

The fact that systematic differences in the financial reporting transparency have been found among firms within and across industries, lends weight to the argument that efficient solutions are being found in the market for financial information (Malone, Fries and Jones, 1993; Wallace and Naser, 1995). Regulators can use research findings regarding determinants of transparency to further their understanding of the existing market for financial information before determining whether intervention is necessary. The responsibility for regulating accounting and financial reporting in Bangladesh is shared by three main statutory bodies. The Securities and Exchange Commission (SEC) for regulating the capital market, and the Bangladeshi Stock Exchange (DSE & CSE), for ensuring compliance with the listing rules and reporting requirement for companies quoted on the exchange in addition to providing a trading platform for quoted equity and debt. The ICAB is responsible for the introduction, review and removal of local accounting standard. Generally, regulatory and reporting framework in Bangladesh is still developing; however, the Bangladeshi Stock Exchange has a very strict compliance and monitoring mechanisms. Thus in terms of mandatory disclosure, most of the quoted companies comply with the minimum level of disclosure required.

Financial statement transparency may also be in quantitative (either in Taka or other units of measure) or qualitative form. Relatively few disclosure studies explicitly define what attribute of the dependent variable, disclosure, is being measured, and fewer still adequately reconcile the variable under study with its measurement. For instance, McNally et al. (1982) fail to reconcile the quality of corporate disclosure practices with their measurement of the extent of disclosure. As Buzby (1975) states extent of disclosure is not synonymous with adequacy of disclosure, therefore measurement based on extent cannot be taken as a measure of the overall quality in annual reports. A notable exception appears to be Wallace and Naser (1995) who, based on a
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review of the literature, identify five key aspects of quality of disclosure: (1) adequate for a defined purpose; (2) informative; (3) timely; (4) understandable/readable; and (5) comprehensive. In their study, the researchers adopted comprehensiveness of disclosure as the dependent variable and proceeded to construct a specific measure of comprehensiveness. This leads to a second and compounding problem with existing research: few studies acknowledge that the underlying variable is not amenable to measurement (Marston and Shrives, 1991). Again, Wallace and Naser (1995) is an exception: Financial disclosure is an abstract concept which cannot be measured directly. It does not possess inherent characteristics by which one can determine its intensity or quality like the capacity of an automobile. Notwithstanding these concerns, most disclosure studies measure annual report disclosure using a disclosure index. Forker (1992) looked at share options disclosure good or bad, while Thomas (1986) examined the disclosure or non-disclosure of forecast information in interim accounts.

Depending on research objectives, disclosure index studies involve establishing a list of mandatory, voluntary, or aggregate disclosure items. The sample firms’ financial statements are then assessed relative to this list. Although some variations to scoring do exist, a score of one for disclosed and zero is usually assigned for each item (not) disclosed. Each firm’s aggregate score is then divided by the total number of items relevant to that firm. The quotient represents the firm’s overall disclosure index score, whose value will lie somewhere between zero and one, inclusive (Cooke 1989a, 1989b, 1991, 1992, 1993; Patton and Zelenka, 1997). Some studies, such as Buzby 1975, McNally et al., 1982, assigned weights to each disclosure item, based on the assessment of each item’s importance by a particular class of user. Other studies, however, have dispensed with the use of weights on the basis that (1) using only one or two user groups results in weights not representative of all user classes, whereas using a multitude of user groups will result in an unwieldy study (Cooke, 1989a), (2) as there are no real economic consequences for subject raters, their assessments may not reflect their actual use of each item (Chow and Wong-Boren, 1987), and (3) the results of using weighted and unweighted disclosure indices may not be statistically significantly different from each other (Chow and Wong-Boren, 1987). A more detailed description and critique of the use of disclosure indices can be found in Marston and Shrives (1991).

Ahmed and Courtis (1999), a wide range of theoretical arguments are employed, including agency costs, political costs, signaling and information asymmetry, capital needs, litigation costs, and audit firm reputation. Buzby (1975) pointed out an association between asset size and financial reporting quality which is referring to the special characteristics surrounding the size of a firm. Size is a proxy for a number of corporate characteristics, so it is not surprising that many reasons have been advanced in the literature supporting a priori expectation of an association between corporate size and disclosure. Singhvi and Desai (1971) and Buzby (1975) put forward three reasons. First, larger firms generally have a more diverse product range and more complex distribution networks than smaller firms. As a result, larger and more complex management information systems and databases are required for management control purposes. Consequently, disclosure costs may be generally lower for larger firms. Second, larger firms make more extensive use of capital markets for external financing relative to smaller firms. It is further argued that firms can increase the marketability of their securities in capital markets, and obtain capital more easily and cheaply through more extensive disclosure. Lastly, smaller firms may
consider themselves to be placed at a competitive disadvantage relative to larger firms through more detailed corporate disclosure.

According to Hasanali (2010), Edwards and Bell (1961) and Ohlson (1995) derive an accounting-based valuation model that expresses firm value as a function of book value and expected earnings (EBO Model). The model states that stock price is a function of its book value and present value of upcoming expected abnormal profits. Many researchers simplified EBO model in which stock price is a function of profit and book value of equity capital. Value relevance models measure the quality of financial reporting information by focusing on the associations between accounting figures and stock-market reactions (Barth, Beaver and Landsman, 2001; Choi, Collins and Johnson, 1997; Nichols and Wahlen, 2004).

Many researchers have operationalized predictive value as the ability of past earnings to predict future earnings (Francis et al., 2004; Lipe, 1990; Schipper and Vincent, 2003). Predictive value explicitly refers to information on the firm’s ability to generate future cash flows: information about an economic phenomenon has predictive value if it has value as an input to predictive processes used by capital providers to form their own expectations about the future (IASB, 2008). Predictive value is considered as most important indicator of relevance in terms of decision usefulness and measure of predictive value using three items. The first item measures the extent to which annual reports provide forward-looking statements. The forward-looking statement usually describes management’s expectations for future years of the company. For capital providers and other users of the annual report this information is relevant since management has access to private information to produce a forecast that is not available to other stakeholders (Bartov and Mohanram, 2004). The second item measures to what extent the annual report discloses information in terms of business opportunities and risks. Jonas and Blanchet (2000) refer to the complementation of financial information by non-financial information, when referring to predictive value, and the knowledge that can be obtained of business opportunities and risks, since it provides insight into possible future scenarios for the company. The third item measures company’s use of fair value. Prior literature usually refers to the use of fair value versus historical cost when discussing the predictive value of financial reporting information (Barth et al., 2001; Hirst, Hopkins and Wahlen, 2004; McDaniel, Martin and Maines, 2002; Schipper and Vincent, 2003; Schipper, 2003). It is often claimed that fair value accounting provides more relevant information than historical cost because it represents the current value of assets, instead of the purchase price (inter alia Maines & Wahlen, 2006; Schipper & Vincent, 2003). In addition to predictive value, confirmatory value contributes to the relevance of financial reporting information. Information has confirmatory value “if it confirms or changes past (or present) expectations based on previous evaluations” (IASB, 2008). Jonas and Blanchet (2000) argue that if the information in the annual report provides feedback to the users of the annual report about previous transactions or events, this will help them to confirm or change their expectations.

Using agency theory, Hossain et al. (1995) argue in support of a positive association between size and disclosure on the basis that the potential benefits of disclosure increase with agency costs. Consistent with Jensen and Meckling (1976), agency costs rise with increases in the proportion of outside equity (which tends to be higher for large firms). Wallace and Naser (1995) argue that larger firms naturally attract a large number of suppliers, customers, and analysts, which consequently increases the demand for information about their activities. Political cost arguments
have been put forward in support of both a positive association between firm size and disclosure (Cooke, 1989a; Wallace and Naser, 1995; Wallace, Naser, and Mora 1994). Empirical evidence generally supports the association between firm size and financial reporting quality (Singhvi, 1968; Singhvi and Desai, 1971, Buzby, 1975; Davies and Kelly, 1979; Courtis, 1979; Firth, 1979; McNally et al., 1982; Chow and Wong-Boren, 1987; Cooke, 1989a, 1989b, 1991, 1992; Tai et al., 1996; Hossain, Lin and Adams 1994); Wallace et al., 1994; Hossain et al., 1995; Raffournier, 1995; Wallace and Naser, 1995; Inchausti, 1997; Marston and Robson, 1997; Patton and Zelenka, 1997; Owusu-Ansah, 1998) and Adelopo (2010), although there are a number of notable exceptions, such as Lau (1992), Malone et al. (1993), Ahmed and Nicholls (1994); and Ahmed (1996). In addition, stock exchange listing status (quoted versus unquoted) has been found by many study to be associated with financial transparency (Singhvi and Desai, 1971, Firth, 1979; Cooke, 1989a, 1989b, 1991, 1992, 1993; Malone et al., 1993, Hossain et al., 1994; Wallace et al., 1994; Hossain et al., 1995; Inchausti, 1997; Patton and Zelenka, 1997).

Agency theory has largely been used also to explain the relationship between firm leverage and financial reporting quality. It is argued that as leverage increases, there are wealth transfers from fixed claimants to residual claimants. As debenture holders are able to ‘price protect’ themselves, managers and shareholders have an incentive to voluntarily increase the level of monitoring, such as by increasing the disclosure of additional information about the firm activities (Schipper, 1981). Empirical evidence appears to be inconclusive. While Courtis (1979), Lau (1992), Malone et al. (1993), Hossain et al. (1994), Hossain et al. (1995), Patton and Zelenka (1997), Adelopo (2010) have all found a positive relationship between leverage and financial reporting quality, many researchers have not found the positive relationship (Chow and Wong-Boren, 1987; Ahmed and Nicholls, 1994, Wallace et al., 1994; Raffournier, 1995; Wallace and Naser, 1995; Ahmed, 1996; Inchausti, 1997). On the other hand, Zarzeska (1996) found a negative relationship between leverage and disclosure, suggesting that highly leveraged companies tend to disclose private information to their creditors which may not be reflected in their annual reports. Collett and Hrasky, (2005) could not document any relationship between intention to raise new debt capital and disclosure. Owusu-Ansah (1998) did not find any significant relationship between leverage and corporate disclosure. These contrast with the following studies that have found positive relationship between corporate disclosure and leverage (Barako et al, 2006; Ahmed and Courtis, 1992; Wallace and Naser, 1995). These conflicting results provide genuine incentives for further investigation of this relationship.

Studies have found conflicting results on the impact of ownership structure on firm financial reporting quality. From an agency theoretical perspective, a positive relationship is envisaged between dispersed ownership and firm disclosure (Fama and Jensen, 1983; Jensen and Meckling, 1976). This is because in a shareholder driven system, with separation of management from shareholders, information asymmetry is predominant, this can be mediated by providing as much information as possible, since market values financial reporting transparency (Hung, 2001). However, in concentrated or insider driven ownership system including family owned or state owned enterprise, the demand for corporate disclosure would probably be less and an inverse relationship is expected between ownership structure which refers to dispersed or block shareholding and financial reporting transparency. Chau and Gray (2002) reported a positive relationship between dispersed ownership and firm financial reporting transparency for a sample
of Hong Kong and Singaporean companies; they also found a negative relationship between insider-family controlled companies and reporting quality. McKinnon and Dalimunthe, (1993) reported a positive relationship between dispersed ownership structure and financial reporting quality. Similar results have been reported in Barako, Hancock and Izan, (2006) who found positive relationship between foreign and dispersed ownership and corporate disclosure. On the other hand, Naser et al (2002) and Wallace et al (1994) could not document any significant relationship between dispersed ownership structure and firms’ financial reporting quality. These relationships are examined further by this study based on the conjecture that a positive relationship exists between dispersed share ownership and quality of financial reporting.

Research Design, Data and Robustness

To test for the presence of quality of financial reporting, two steps regression is used as a research design. Modified EBO model is used to measure the predictability power of financial statements’ of the sampled firms and firms’ structure is decomposed into three components and then integrated in one stage model. The residuals for the firms from equation (2) represent financial reporting quality in equation (3). This approach is chosen to enable the researcher determine the impact of each explanatory variables on the explained variable and make analysis. In this research, linear regression models have been used, therefore the assumptions of these models should be regarded. The integrity of regression assumptions can be determined by considering residuals distribution and its relationships with other variables. Residuals include the difference between the observed values of a dependent variable and the predicted values by regression line. In regression analysis considering linearity, normality, stability of variance and independence of observations is of vital importance. In this research, these assumptions were considered, but not mentioned here for brevity.

Measure of Financial Reporting Quality

Financial reporting quality is an elusive concept in the accounting literature. Consequently, there is little agreement among researchers about how best to measure financial reporting quality (Dechow, Ge, and Schrand 2009). The scarcity of readily available data in an international setting further complicates this issue. As a result, this study relies on the predictive capability of the Bangladeshi quoted manufacturing firms’ financial statements using a modified EBO model. The Model is presented below:

\[ P = \beta_0 + \beta_1BV + \beta_2E + e \] ………… (1)

The modified EBO model contains an addition of variable called changes in earnings. When both concepts are strongly correlated, i.e. changes in accounting information correspond to changes in market value of the firm; it is assumed that earnings information provides relevant and reliable information (Nichols and Wahlen, 2004). This method is also used to examine earnings persistence, predictive ability, and variability, as elements of reporting quality (Schipper and Vincent, 2003; Francis, LaFond, Olsson and Schipper, 2004). The modified model is presented as follows:

\[ P = \beta_0 + \beta_1BV + \beta_2E + \beta_3\DeltaE + e \] ………… (2)

Where:  
\[ P = \text{price of stock} \]
\[ \beta_0 = \text{Intercept} \]
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β1-3 = Coefficient of the independent variables
BV = Book value (Book value of equity capital)
E = Earnings (Earnings per Share)
ΔE = Change in Earnings per Share
e = Residual or error term

In selecting measure of financial reporting quality, emphasis is made on reported financial accounting data rather than the accounting rules adopted by the sample firms. Prior research shows that stated accounting rules can be circumvented by insiders and hence do not reflect firms’ actual reporting practices (Ball, Robin, and Wu 2003). Therefore, to assess the financial reporting quality of a firm, it is not proper to rely on “what they say” but on “what they do.” However, the regression result of the modified EBO model from perspective of model fitness and significant values will be the basis for determining the quality of financial reporting in this paper. Thus, the better the model is fit and the values are significant, the higher the financial reporting quality of Bangladeshi quoted manufacturing firms and vice versa. The result is discussed later.

Measure of Explanatory Variables

The overall regression model that captures the hypothesis of the study is presented below:
FRQ = β0+β1X1+β2X2+β3X3 + e…………………(3)
Where:
FRQ = Residuals of EBO model
β0 = Intercept
β1-3 = Coefficient of the independent variables
X1 = Firm size (Lnasset)
X2 = Leverage (Lev)
X3 = shares dispersion (Ln No. of Shareholders)
e = Residual or error term

The measurement of independent variables is calculated as follow:

a. Firm size (Lnasset) is measured as the logarithms total assets that refer to the sum of current and non-current assets at the end of firm’s reporting year (2009)
b. Leverage (Lev) is measured as the ratio of total non-current liabilities to owners’ equity and long term liabilities.
c. Shares dispersion (obtained from analysis of shareholding parts in the note to account, measured by the logarithms of number of shareholders).

All these variables are tested based on the hypothesis whether it is a significant factor to the financial reporting quality. Pauline and Mathews (2002) suggested that log transformed data should be applied for skewed data set, namely for total assets and number of shareholders. The other reason why the variable are logged is to eliminate outliers that exist within the huge data range from the larger to smaller firm and number of shareholders size. By doing so, it blends the data set to the extent, which can be guaranteed that the details of each data were taken into the statistical measure.
To test the hypotheses of this study, a multiple regression model was used. This is judged to be suitable due to the nature of the variables which, both the dependent and independent variables are continuous rather than dichotomous.

A review of prior studies in this area highlighted the difficulty in identifying the association between the dependent and the explanatory variables. Several assumptions in regression analysis were first tested to ensure that, there was no significant multicollinearity problem between independent variables; the variance of the distribution of the dependent variable is similar for all values of the independent variables (homoscedasticity); a linear relationship exists between the dependent and independent variable (linearity); the distribution values of the dependent variable for each value of the independent variable is normal (normality) and that no errors related to measurement and specification exist, (Haniffa and Cooke, 2002).

Data on the financial reporting quality and firms' structures proxies are collected from 12 samples of quoted manufacturing firms in Bangladesh using stratified sampling technique. The 12 samples are taken randomly from the population of all 24 firms as at 31 December 2009, three from each strata of four namely; building materials, chemical and paints, conglomerates and food beverages & tobacco. Each firm has equal chance to be one of the samples. It represents 50% of the whole population.

Results and Discussion

This section deals with result presentation and analysis. Multiple regression has been used to estimate the influence of the explanatory variables (firm size, leverage and dispersed shares) on the explained variable (financial reporting quality). First, the result of the modified EBO model (equation 2) is presented and discussed to determine the financial reporting quality as explained variable of equation (3). Then, some descriptive statistics from the sample firms are presented followed by the presentation and analysis of the regression results. Finally, the findings and policy implication of the results are discussed.

Table 1: Model Summary of equation 2 ($P = \beta_0+ \beta_1BV+\beta_2E+\beta_3\DeltaE +\epsilon$)

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.959</td>
<td>.940</td>
<td>917</td>
<td>0.0309</td>
</tr>
</tbody>
</table>

Table 1 above shows the combined correlation of independent variables and dependent variable is 97% indicating strong positive relationship and coefficient of determination of 94% indicates a strong explanatory power of earnings and book value of stocks over the predictability of their prices. In addition, the Fisher's statistics of 42 significant at 1% indicates that the modified EBO model is fit. Therefore, the residuals of the model reveal that the financial reporting of quoted manufacturing firms in Bangladesh is qualitative.
For estimating the regression equation of sample firms there is need to notice the amount under B column and their corresponding variables below the first column. The amount below B column is the coefficient of each one of the explanatory variables in the regression equation. Therefore, the estimated regression equation (2) is as follows:

\[ P = 0.08 + 0.57BV - 0.25E + 0.19\Delta E + e \]

Determination coefficient indicates the variance of dependent variable which is explained by the available independent variables in the regression model. In fact, this coefficient shows the ability to explain the changes in the dependent variables by independent ones of the model. As far as this coefficient is bigger the ability to explain the model is also higher. Table 2 shows all the t-values of the independent variables are significant at 1%, 10% and 1% respectively. This confirms the high predictability power of the modified EBO model used in this study and its capability to measure financial reporting quality. The policy implication of this result is that management and potential investors among others of Bangladeshi listed companies should be adopting the model to measure the financial reporting quality of their firms.

### Financial Reporting Quality and Firms Structure

In this section, the regression results of model 3 (FRQ = \( \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e \)) are presented and discussed capturing the hypotheses of the study which state that firm size, leverage and share dispersion have no significant effect on the financial reporting quality of quoted manufacturing firms in Bangladesh.

### Table 3: Descriptive statistics of equation 3 (FRQ = \( \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e \))

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRQ</td>
<td>12</td>
<td>6.67</td>
<td>8.18</td>
<td>7.5417</td>
<td>.15584</td>
</tr>
<tr>
<td>Lnassets</td>
<td>12</td>
<td>.05</td>
<td>.90</td>
<td>.4775</td>
<td>.08828</td>
</tr>
<tr>
<td>Leverage</td>
<td>12</td>
<td>.52</td>
<td>.91</td>
<td>.6667</td>
<td>.14213</td>
</tr>
<tr>
<td>Lshareholdings</td>
<td>12</td>
<td>.67</td>
<td>.94</td>
<td>.81</td>
<td>.01890</td>
</tr>
</tbody>
</table>
The table above presents the descriptive statistics. The average percentage level of financial reporting quality is 81%, its maximum level is 94% and the minimum is 67%. The average total asset of the manufacturing companies in the sample is N7.5b with a minimum and maximum of 6.7b and 8.2b Naira respectively. In addition, the average level of borrowed funds to finance the operations of the selected quoted manufacturing firms in this study is 48% while the remaining 52% is occupying equity financing. The table also reveals that 67% of the firms shareholding is dispersed while the remaining 33% is a block holding. The standard deviation shows the level of contributory power of the explanatory variables to the explained variable. Leverage has the lowest standard deviation which indicates higher contribution to the quality of financial reporting, and then followed by share dispersion and assets respectively (Gujarati, 2004).

The regression results of the three null hypotheses, that is, firm size, leverage and dispersed shares have no significant effect on the financial reporting quality of Bangladeshi quoted manufacturing firms are presented in the table below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
<td>Sig</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.08</td>
<td>0.07</td>
<td>4.891</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Ln assets</td>
<td>5.412-6</td>
<td>0.00</td>
<td>.893</td>
<td>6.322</td>
</tr>
<tr>
<td></td>
<td>Leverage</td>
<td>-0.663</td>
<td>.150</td>
<td>-0.615</td>
<td>-4.417</td>
</tr>
<tr>
<td></td>
<td>Ln shareholders</td>
<td>0.031</td>
<td>.013</td>
<td>.324</td>
<td>2.401</td>
</tr>
</tbody>
</table>

The study hypothesizes no significant relationship between firm size as proxy of firm structure and financial reporting quality. The result in table 4 above indicates a positive and significant relationship between firm size and financial reporting quality of quoted manufacturing firms in Bangladesh, considering the t-value of 6.322 with significant value of 0.000(significant at 1%). The null hypothesis suggesting no significant relationship is therefore rejected. This result is similar to findings from (Singhvi, 1968; Singhvi and Desai, 1971; Buzby, 1975; Davies and Kelly, 1979; Couris, 1979; Firth, 1979; McNally et al., 1982; Chow and Wong-Boren, 1987; Cooke, 1989a, 1989b, 1991, 1992; Tai et al., 1990; Hossain, Lin and Adams 1994; Wallace et al., 1994; Hossain et al., 1995; Raffournier, 1995; Wallace and Naser, 1995; Inchausti, 1997; Marston and Robson, 1997; Patton and Zelenka, 1997; Owusu-Ansah, 1998) and Adelopo (2010), although there are a number of notable exceptions, such as Lau (1992), Malone et al. (1993), Ahmed and Nicholls (1994); and Ahmed (1996).

Secondly, in examining the relationship between financial reporting quality and leverage, result showed an unexpected negative relationship between them. This is confirmed by the negative t-value of -4.417 which means they are inversely related. However, despite the nature of the relationship, it is still significant at 1%. Therefore, the null hypothesis that leverage has no significant effect is rejected. The result is not consistent with studies such as Couris (1979), Lau (1992), Malone et al. (1993), Hossain et al.(1994), Hossain et al.(1995), Patton and Zelenka

Thirdly, the relationship between dispersed share ownership and financial reporting quality of quoted manufacturing firms in Bangladesh is anticipated to be positive. The regression result shows the anticipated positive relationship between them with the t-value of 2.401 and statistically significant at 5%. This provides evidence that the null hypothesis which states dispersed shares has no significant effect on the quality of financial reporting be rejected. The result contradicts the findings of McKinnon and Dalimunthe, (1993); Chau and Gray (2002); Barako, Hancock and Izan, (2006) and supports Naser et al (2002) and Wallace et al (1994). The tolerance value and the variance inflation factor (VIF) are two advanced measures of assessing multicollinearity between the independent variables of the study. From table 4, the variance inflation factors were consistently smaller than ten indicating complete absence of multicollinearity (Neter, Kutner, Nachtsheim, & Wasserman; 1996 and Casey & Anderson; 1999). This shows the appropriateness of fitting the model of the study with the three independent variables. In addition, the tolerance values are consistently smaller than 1.00 thus further substantiates the fact that there is complete absence of multicollinearity between independent variables Tobachnick, & Fidell, (1996).

Table 4: Model Summary of equation 3 (FRQ = β0+β1X1+β2X2+β3X3 +e)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.927</td>
<td>.859</td>
<td>.806</td>
<td>.00638</td>
<td>F Change = 16.252</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>8</td>
<td>.001</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Lnshareholders, Leverage, Lnassets

Finally, table 4 above composed the model summary of the study showing aggregate influence of explanatory variables on the explained variable. Thus, determining the effect of Bangladeshi quoted manufacturing firms’ structure on their quality of financial reporting. The result reveals that the firms’ structure has significant effect on the financial reporting quality of quoted manufacturing firms in Bangladesh at 1% level of significance. In addition, the coefficient of determination (R²) indicates that firm’s structure occupies 86% of the influence on the quality of financial reporting while the remaining 14% is controlled by other factors. This implies that firm structure plays a prominent role in determining the quality of financial reporting of quoted manufacturing firms in Bangladesh.

A possible explanation of the results of this high quality of financial reporting by the firms may be as a result of statutory and regulatory agencies efforts in ensuring disclosure compliance so that the users of accounting information get the true view of financial statements and contributed to the decision made by the investors to invest in their companies. This is supported by the fact
that the mean of financial reporting quality of companies in the sample of this study is 81%.
Therefore, there is greater uniformity in term of the reporting relating to the financial statements.
The high \( R^2 \) of 86% indicates that the variables captured by the model are appropriate.
The result from the univariate and multivariate analyses are interesting. Focusing more on the
multivariate analyses because they appear more robust, the study found significant positive
relationship between quality of financial reporting and firm size, measured as the natural
logarithms of total assets. This confirms that bigger organizations tend to have better reporting
quality than small firms. Similar explanation may suffice for the documented significant
relationship between share dispersion and quality of transparency in the annual reports.
Surprisingly, leverage showed a significant negative relationship with financial reporting quality
against an expected positive relationship. The result may be due to the divergent views on the
measurement of leverage.

Results from this study has important policy implications for standard setters, international
organizations working with developing economies on attracting foreign direct investments, for
individuals and institutional investors both domestically and at the international level.

**Conclusion and Recommendation**

In view of the findings of this research, it is concluded that firm’s structure has significant
positive influence in determining the quality of financial reporting of quoted manufacturing firms
in Bangladesh. Hence, the regulators should enforce more on the financial statements disclosure
among companies quoted on the DSE as to ensure a higher quality of financial statements. In
addition, enforcement of the disclosure requirement for the companies can also be vital in
determining the level of transparency. For example, a new regulation such as full and detailed
expenses must be disclosed. In this era of globalization, the foreign investors, particularly the
institutional investors have the confidence to invest in the DSE and it will be a strategy to
improve Bangladeshi economy.

**References**

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