Corporate governance and corporate accruals: The situation in Bangladesh

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Abstract

This study examines the linear correlation between discretionary accruals (corporate accruals for the purpose of this study) and corporate governance in Bangladesh. The behavior of corporate accruals is explained by corporate governance variables such as board independence, dominant personality, board size, institutional ownership, general public ownership and external auditor. A statistically significant relationship is observed between corporate accruals and general public ownership, which would indicate the existence of an agency problem between shareholders and corporate management. Corporate accruals are not dependent on corporate governance variables but rather on the mindset of corporate managers. Management is in a unique position to produce fraudulent financial statements and the frequency of managerial opportunism in corporate financial reporting in Bangladesh is very high. Corporate boards should therefore be on their guard and employ an active and proactive approach so that shareholders are provided accurate information. It is disastrous for the marginal shareholders when directors themselves exercise opportunism. An ethical, decision-making environment can replace profit-driven decision making and root out the reprehensible practices (information asymmetry) that certain businessmen like to adopt. The findings of this study will help policy planners, regulators, researchers, professional accountants, financial analysts and other interested parties to formulate their own agenda to prevent and reduce managerial opportunism in the Bangladesh corporate sector.

Keywords:

Information asymmetry, Corporate governance, Discretionary accruals, Bangladesh, Corporate accruals, Managerial opportunism, Agency problem.

JEL classification:

M4.

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Gobierno corporativo y devengos “corporativos”: el caso de Bangladesh

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Resumen

Este estudio examina la correlación lineal entre devengos discrecionales (aquí denominados corporativos) y gobierno corporativo, en Bangladesh. El comportamiento de los devengos corporativos viene explicado por variables de gobierno corporativo como la independencia del Consejo de Administración, el tipo de personalidad dominante, el tamaño del Consejo de Administración, el porcentaje de propiedad institucional, el porcentaje de propiedad del público en general y el tipo de auditoría externa. Se observa una relación estadística significativa entre los devengos corporativos y la propiedad pública general, lo cual indica problemas de agencia entre los accionistas y los gestores de la empresa. Los devengos corporativos no dependen de variables de gobierno corporativo sino, más bien, de los gestores de la empresa. Dichos gestores están en una posición única para generar hechos financieros fraudulentos y el grado de utilización del “oportunismo gestor” en los informes financieros es muy alto en Bangladesh. Los Consejos de Administración deben estar alerta y utilizar estrategias activas y proactivas para proporcionar una información exacta a los accionistas. El oportunismo de los propios directivos es un hecho que cabe ser calificado de desastroso para los accionistas. Un entorno basado en decisiones éticas puede reemplazar la toma de decisiones basadas en beneficios y eliminar las prácticas perversas (asimetrías de información) que parte de los gestores querría adoptar. Los resultados que se obtienen en este estudio ayudarán a los planificadores de políticas empresariales, reguladores, investigadores, contables, analistas financieros y cualquier otro grupo interesado en la cuestión a formular su propia agenda para prevenir y reducir el oportunismo de los gestores en el sector empresarial en Bangladesh.

Palabras clave:

Información asimétrica, gobierno corporativo, devengos discrecionales, Bangladesh, devengo corporativo, oportunismo de los gestores, problema de agencia.

1. Introduction

The Bangladesh capital market experienced two bubble-and-burst episodes — one in 1996, the other in 2011. The 1996 episode was the culmination of a 139.3 percent increase in the General Price Index between the years 1991-1995. In early 1996, stock prices at the Dhaka Stock Exchange (*DSE*) moved to the pressure of the market, then in July of the same year, the *DSE* General Price Index (*DGEN*) began to grow at a much more accelerated rate, peaking at 3648.7 points (3.8 times) on November 5, up from 959.1 points at the end of June. Later that day most of the companies' share prices slumped, the bubble burst and the market crashed. Over the next year, the *DGEN* lost 2892 points. From then to the end of 2003, the Bangladesh capital market experienced record lows with the price index below 800.

Ten years after the capital market crash of 1996, in December 2007, the *DGEN* broke the 3000 point barrier for only the second time. From the third quarter of FY2009, the *DGEN* increased sharply reaching 8,723.2 points (2.9 times) on December 01, 2010, up from 3010.3 points at the end of June 2009. But the worst-ever stock market crash in Bangladesh history in late 2010 managed to wipe out even the initial capital investment made by thousands of investors. The aftershock of the market crash of late 2010 continued to be felt with the *DGEN* falling 3,032 points in 2011 and a further 1,038 points in 2012. On January 4, 2013, the *DGEN* hit its lowest levels since November 15, 2009 at only 3,383.23 points (The Daily New Age, 2014).

Corporate Governance (*CG*) guidelines were issued by the Bangladesh Securities and Exchange Commission (*BSEC*) for the first time in 2006 but there was no provision for punitive measures for non-compliance. The 'comply or explain' approach on its own is not enough to ensure good governance. Current *CG* in Bangladesh is far from satisfactory. The probe committee (Khalid, 2011) to investigate the stock market scam, for example, recommended the removal of the chairman, executive director and directors of the *BSEC*. *CG* in Bangladesh clearly raises a red flag. Good corporate governance is a prerequisite for attracting the capital required to ensure continued, long-term, economic growth, and furthermore it can also lead to better relations with workers, creditors, and other stakeholders.

A weak capital market and a weak *CG* lead to malpractices in corporate accounting and reporting. The Institute of Chartered Accountants of Bangladesh (*ICAB*) mentioned earnings management in their letter addressed to the probe committee (Khalid, 2011). The probe committee itself found misleading accounting practices during their investigation. In these conditions, the probability of misleading accrual accounting by management is very high. Corporate management is in a unique position to commit fraud because it can manipulate accounting records and present deceitful finan-

cial information to corporate stakeholders. Managers use their discretionary power when estimating discretionary accruals, also known as abnormal accruals, in accounting procedures. We use the term ‘Corporate Accruals’ (*CA*) instead of discretionary or abnormal accruals as by definition it stems from the management mindset.

Nowadays, the association between *CG* and *CA* is a hot topic of debate in many business seminars and symposia. There is an urgent need to determine if a significant relationship does exist between *CG* and *CA* in Bangladesh. Studies have been carried out into the relationship between discretionary accruals and *CG* in a number of different countries but from one country to the next, the behavior of economic variables is never exactly the same. As stated earlier, the recent huge stock market crash in Bangladesh occurred following capital market reforms (as a result of the crash in 1996) and the introduction of *CG* guidelines. In this study, we are primarily interested in the relationship between accounting information asymmetry and *CG*. Habib and Islam (2007), Houque *et al.* (2010), Kabir *et al.* (2011), Ferdous (2012) and Hasan *et al.* (2013) all studied corporate governance in Bangladesh, but with the exception of Houque *et al.* (2010), none examined the relationship between *CA* and *CG*. Although Houque *et al.* (2010) did explore this relationship, the study period was 2001-2006 and at that time the *CG* guidelines in Bangladesh had yet to be issued. A research gap exists and the present paper aims to fill in the missing elements. Additional studies in this area are required to prevent the use of managerial opportunism in corporate financial reporting. In this context, the present study aims to answer the following research questions: What is the present state of *CG* practices of listed companies? Is there any significant influence of *CG* on *CA*?

■ 2. Literature review

The relationship between *CG* and discretionary accruals has been addressed in earlier studies in a number of countries. Financial reporting is the most important field of accounting so research is continuing in this area to improve current mechanisms to ensure the production of accurate financial statements. A few of these recent research papers are discussed here. Gulzar and Wang (2011) studied the efficiency of *CG* characteristics in reducing earnings management among 1009 firms listed on the Shanghai and Shenzhen Stock Exchanges in China. They used working capital accruals as a proxy for earnings management and used the modified Jones Model. They found a significant positive association between earnings management and a number of different corporate governance characteristics, specifically *CEO* duality, board meetings, female directors and concentrated ownership. Torng-Her *et al.* (2012) studied the impact of *CG* factors on the earning management behavior of 268 publicly-held corporations in Taiwan. They used the modified Jones Model to test the significance of free

cash flow, discretionary accrual and *CG* factors and found that companies audited by the Big-4 CPA firms have less discretionary accruals. Results from *CG* factors indicate that the turnover rate of internal auditors, the number of financial report revisions and the number of earnings forecast are not significantly related to discretionary accruals. Mukti *et al.* (2012) studied the influence of *CG* mechanism and audit quality towards accrual quality of manufacturing companies in Indonesia in the period 2007-2009. The implementation of *CG* mechanisms used three measures: the effectiveness of the audit committee, the corporate board and the family ownership structure. For audit quality, the measurement used two approaches: the amount of the audit fee and the grouping of companies – those audited by Big-4 audit firms and those audited by non Big-4 audit firms. They found that the board of commissioners and audit quality significantly improved the quality of accruals. Abed *et al.* (2012) studied the relationship between earnings management and characteristics of *CG* mechanism for a sample of Jordanian non-financial firms during the period 2006-2009. Earnings management was measured using the Jones models (Jones, 1991). The existence of independent members within the board, the size of the board, the duality (chief executive officer (*CEO*)/chairman of the Board), the percentage of insider ownership were independent variables while size of company and financial leverage were used as control variables. They found that the size of board is the only variable that has a significant relation with earnings management. Meeampol *et al.* (2012) studied the relationship between corporate governance and earnings management among 296 non-financial companies listed on the Stock Exchange of Thailand in 2010. They used board size, percentage of independent directors on the board, *CEO* duality, independent directors who hold outside directorial positions and percentage of managerial ownership. The control variables were audit firm size, firm size, profitability, leverage and type of industry. They found that independent directors who hold an external directorial position have a significant positive relationship with earnings management. Ugbede *et al.* (2013) studied the likelihood of virtually all key elements of *CG* in reducing the scope of earnings management among all listed Nigerian banks and Malaysian commercial banks for the period 2007-2011. They found that key aspects of *CG* have positive or negative association with earnings management. While these are mostly lacking in Nigerian banks' *CG* structure, resulting in poor accrual and earnings quality, high accrual and earnings quality of Malaysia banks can be traced to good *CG*. Sáenz González and García-Meca (2013) studied the relation between the internal mechanisms of *CG* and earnings management among listed Latin American non-financial companies for the period 2006-2009. They found a non-linear relation between insider ownership and discretionary accruals, also pointing to the fact that ownership concentration may be a manipulative practice and constrictor mechanism only when ownership by primary shareholders is moderate. Swastika (2013) studied the impact of *CG* regulation implementation and firm size on the earnings management among 51 food and beverage companies listed on the

Indonesian Stock Exchange (*ISE*). *CG* was proxied by board of directors, audit quality and board independence. Firm size was used as a control variable and the Jones model was used to calculate discretionary accruals. The paper concluded that board of director and audit quality are statistically significant in explaining earnings management. Waweru and Riro (2013) studied the influence of *CG* and firm-specific characteristics on earnings management among 37 companies listed on the Nairobi Stock Exchange (*NSE*). They found that ownership structure and board composition influence the earnings management and that highly leveraged firms are more likely to engage in earnings management. Bhuiyan *et al.* (2013) studied the effect of better compliance with *CG* regulation on discretionary accruals of 70 listed companies in New Zealand. They used free cash flow instead of cash flow from operating activities. They found that better compliance with *CG* reduces discretionary accruals implying less opportunistic behavior by management. They used a comparative analysis of traditional discretionary accrual measure with a free cash flow approach of discretionary accruals. Tangjitprom (2013) studied the role of *CG* and the effect of earnings management on firm value for firms listed on the Thailand Stock Exchange (*TSE*). He found that earnings management has weak positive effect on firm value. However, after classifying those firms based on *CG* level measured by *CG*-star, firms with good governance have a more positive effect on earnings management. Ghofar and Islam (2013) studied the relationship between effectiveness of *CG* and earnings management for listed companies in the Indonesian capital market. For *CG* effectiveness, they found a negative relationship with earnings management so *CG* is effective at improving earnings quality, but it has no relationship with performance.

Although a number of studies have been carried out in Bangladesh, not all of them examined the relationship between *CG* and *CA*, take for example Habib and Islam. (2007), Ahmed *et al.* (2008), Kabir *et al.* (2011), Ferdous (2012), Hasan *et al.* (2013). Only, Houque *et al.* (2010) dealt with the relationship between *CG* and *CA*. Habib and Islam (2007) studied the relationship of *CA* with other corporate attributes specifically audit fee, non-audit service, growth, leverage, right shares, initial public offerings, size, chief financial officer and total accruals for the period 1996-1999. Ahmed *et al.* (2008) studied the *CG* framework, a *CG* model and the relations between rate governance and firm's performance and *CG* and firm valuation. The study suggested a relationship between *CG* and others factors such as ownership structure, board members, firm performance based on previous studies. Kabir *et al.* (2011) studied the relationship between Big-4 affiliated audit firms and accrual quality using data for the period 2000-2003. They found that the Big-4 affiliated firms do not have a positive impact on accruals quality of their clients in Bangladesh. Ferdous (2012) studied compliance code of *CG* and developed a corporate governance index (*CGI*) using data for 2010. The study measured the relationship between *CGI* and six corporate attributes. Hasan *et al.* (2013) looked at the influence of *CG* and overall disclosure index (*ODI*).

Houque *et al.* (2010) used seven *CG* variables and five control variables in their regression model to examine the influence of *CG* on discretionary accruals. The Jones model was used to determine the level of discretionary accruals. However, they did not take into consideration two of the most important variables, namely general public ownership (shareholders) and CEO Duality. They did not use a performance-matched model when measuring *CA* and the study was conducted before the major Bangladesh capital market crash (2010-2011). Following the issuing of *CG* guidelines in 2006 and given the aforementioned crash in 2010-2011, it has become even more important to examine the current *CG* scenario in line with the BSEC guidelines and also to determine the relationship between *CA* (information asymmetry) and *CG*. This is a very contemporary subject (research gap) and one which this paper aims to address. Moreover, additional studies need to be carried out in this area to stop the use of managerial opportunism in corporate financial reporting in Bangladesh.

■ 3. The *CG* variables explaining *CA*

In order to test the relationship between *CG* and *CA*, accruals by management choice or discretionary accruals of sampled companies have been used as a dependent variable (*CA*) while Board Independence (*BI*), Dominant Personality (*DP*), Board Size (*BS*), Institutional Ownership (*IO*), General Public Ownership (*GP*), and the External Auditor (*EA*) have been used as explanatory variables.

The definition and measurement of the above explanatory variables and the range of their values are presented in the Appendix. We will now briefly review *CG* literature to see what it states about their role in governance practices.

Board independence

The board, which comprises a number of independent directors, has a greater monitoring and controlling ability over management (Fama and Jensen, 1983). The state of 'independence' is met when a director *inter alia* neither holds significant ownership nor holds any executive position in the company (Malaysia, 2006). BSEC corporate guidelines state that one-fifth of the directors on the corporate board, subject to a minimum of one, should be independent directors. But in Malaysia, if a company has only three board members, two of them are required to be independent (Malaysia, 2006). Board independence seeks fairness in the strategic decision making by the Board and the effective monitoring of the decisions and activities of managers, thus ensuring transparency of information (Chen and Jaggi, 2000; Patelli and Prencipe, 2007). While Davidson *et al.* (2005) observed that the use of independent directors to force fair earnings management practices in Australian firms was effective, Brad-

bury *et al.* (2006) in Singapore found no association between earnings management and board independence.

Dominant personality / CEO duality

Concentration of power in a company exists when a single individual acts as both *CEO* and chairman of the Board. *CG* literature has underlined the need to separate these roles to ensure board independence and improve transparency (Jensen, 1993). In this respect, Dechow *et al.* (1996) revealed that the duality of *CEO*-chairman increases the likelihood of violating the accounting principles in American firms. Byard (2006) indicated that the presence of a *CEO* who also works as the board chairman is associated with poor quality financial information. Similarly, Beekes *et al.* (2004) and Firth *et al.* (2007) stated that financial reporting is more relevant in British and Chinese firms when the *CEO* and the board chairman are two separate individuals. However, other researchers did not observe any significant association between *CEO* duality and financial reporting (Ahmed *et al.*, 2006; Bradbury *et al.*, 2006; Petra, 2007).

Board size

The number of directors is an important factor in the effectiveness of a corporate board. A larger board may bring a greater number of experienced directors (Xie *et al.*, 2001) and may represent a multitude of values (Halme and Huse, 1997) on the board. In contrast, a smaller board may imply a high degree of coordination and communication between the directors and managers (Jensen, 1993). Chaganti *et al.* (1985) claimed that a smaller board is more convenient and more often plays a controlling role whereas a larger board may not function efficiently as the board has a relatively *laissez-faire* approach to corporate management. Vafeas (2000), Ahmed *et al.* (2006) and Bradbury *et al.* (2006) all found that a larger board reduces the information content of income and intensifies earnings management in American, Singapore and New Zealand firms. Santiago and Brown (2009) found a positive relation between board size and earnings management in Brazilian, Chilean, and Mexican companies. In contrast, in a sample of 313 firms from Hong Kong, Chin *et al.* (2006), found a negative relation between board size and earnings management, and concluded that larger boards experience fewer manipulative practices by management.

Institutional ownership

The influence of shareholder involvement in governance reforms is important when gaining an insight into governance practices (Daily *et al.*, 2003). To date, the participation of institutional investors has emerged as an important force in corporate mon-

itoring to protect the interests of minority shareholders. The significant increase of institutional shareholdings has led to the formation of a large and powerful constituency that plays a significant role in corporate governance. In the UK, institutional investors own between 65 and 75 percent of the UK stock market, which suggests institutional shareholders can play a prominent role in *CG* (Mallin, 2003). Equity participation of institutional investors can alleviate issues associated with the conflict between controlling owners and minority shareholders in Asian firms, and institutional investors may help improve *CG* practices (Claessens and Fan, 2002). Concentrated shareholdings by institutions provide diligent monitoring of management actions because they have the resources, expertise and therefore stronger incentives to prevent opportunistic behavior (Wan Hussin and Ibrahim, 2003). Institutional shareholders are often characterized in academic research as sophisticated investors who enjoy advantages over other investors when it comes to acquiring and processing information (Bartov *et al.* 2000; Jiambalvo *et al.* 2002). Institutional investors prefer information not to be broadly available as they worry about a decline in the quality of the information provided or a loss of their information advantage (NIRI, 2000). Some researchers (Bushee, 1998; Hsu and Koh, 2005; Houque *et al.*, 2010) found a negative association between institutional ownership and *CA*.

General public ownership

Differences in the proportion of a firm that is owned by outsiders may account for some of the observed differences in the comprehensiveness of mandatory disclosure, because the greater the number of people who need to know about the affairs of a firm, the more comprehensive the firm's disclosure will be (Apostolou *et al.*, 2009). Leftwich *et al.* (1981) suggested that issuing financial reports could solve monitoring problems associated with increases in the proportion of the firm owned by outsiders. If the number of shareholders or the proportion of the firm owned by outsiders' increases, the financial information disclosed in annual reports will become more comprehensive.

External auditor

The external audit can be an effective control mechanism for monitoring managers and the integrity of financial reports (Jensen and Meckling, 1976; Watts and Zimmerman, 1983). The appointment of an independent external auditor can reduce the probability of earnings manipulation by reducing managerial opportunism (DeAngelo, 1981; Becker *et al.*, 1998; Chung *et al.*, 2003). In practice, an auditor's reputation and the quality of their work is associated with being part of or affiliated to a major international audit firm (Brown *et al.*, 2010). Some authors suggest that financial information is more reliable for "BIG 4" clients in comparison to other companies (Teoh

and Wong, 1993; Becker *et al.*, 1998). In Bangladesh, there are six audit firms with international ties. These firms appear on a list in the Appendix. Companies audited by such firms are expected to have less discretionary accruals than companies audited by other firms.

■ 4. Computational approach

The conceptual model is developed to get a better understanding of the diagnostic pattern of the problem under study. First of all, six *CG* indicators are selected as explanatory variables (the variables presented in section 3) and these are then tested to see if their effect on *CA* is null or significantly different from zero (the nullity of these effects constitutes the hypotheses of the models).

The diagram of the conceptual model is shown in Figure 1.

■ **Figure 1. Conceptual model of influence of Corporate Governance on Corporate Accruals**

A linear regression is performed for in-depth analysis of the relationship between *CA* and *BI*, *DP*, *BS*, *IO*, *GP* and *EA*. This study uses the backward method to identify any significant associations between dependent and independent variables. The following linear model is developed to estimate the effect of each *CG* variable on *CA*:

$$CA = \alpha + \beta_1 BI + \beta_2 DP + \beta_3 BS + \beta_4 IO + \beta_5 GP + \beta_6 EA + \varepsilon$$

Corporate annual reports for 2010-2011 of 68 of 155 non-financial companies listed on the Dhaka Stock Exchange (*DSE*) were used as a sample for the study (see Appendix). The sample companies were selected based on the availability of said corporate annual reports.

The data for the dependent variable was derived from a rigorous calculation and the data for explanatory variables were collected directly from a survey of the corporate annual reports of the sample companies. The details are discussed below.

For the dependent variable, corporate financial statements for the period 2010-2011 of the sample companies are used to measure *CA* (*managerial accruals* or *discretionary accruals* or *abnormal accruals*). *CA* is derived from the analysis of total accruals (*TA*) and non-corporate accruals (*NCA*). *TA* are the difference between net income (*NI*) and cash flow from operations (*CFO*). *NCA* is measured using regression analysis. A modified Kothari-Jones model (Khotari *et al.*, 2005) is used to segregate the accruals into non-corporate and corporate and all variables are deflated by lagged total assets (*LTA*, the total assets of the previous year), in order to reduce heteroskedasticity. The regression model for *TA* is estimated as follows:

$$\frac{TA}{LTA} = \beta_1 \frac{1}{LTA} + \beta_2 \left(\frac{\Delta REV - \Delta AR}{LTA} \right) + \beta_3 \frac{PPE}{LTA} + \beta_4 \frac{NI}{LTA} + \varepsilon$$

where ΔREV indicates the change in revenues from the preceding year, ΔAR is the change in accounts receivable from the preceding year, and *PPE* represents the gross value of property, plant and equipment.

The above regression parameters or coefficient estimates (β values) are used in the following regression equation to estimate the firm-specific *NCA* or normal accruals:

$$\frac{NCA}{LTA} = \beta_1 \frac{1}{LTA} + \beta_2 \left(\frac{\Delta REV - \Delta AR}{LTA} \right) + \beta_3 \frac{PPE}{LTA} + \beta_4 \frac{NI}{LTA}$$

The data for explanatory variables were extracted from the survey of corporate annual reports for 2010-2011 of each sample company.

■ 5. Results and discussion

Univariate analysis was carried out to address research question No.1: What is the present state of corporate governance practices of listed companies? Multiple linear regression analysis was carried out to address research question No. 2: Is there any significant influence of *CG* variables on *CA*? This technique was used to determine the effect of each of the explanatory variables on the dependent one.

For the univariate analysis, Table 1 shows that the average rate of *CA* is 35 percent, which indicates a high rate of managerial opportunism in corporate reporting. Similarly, *BI* is 15 percent compared to the *BSEC CG* guideline minimum of 20, and some companies do not even have an independent director despite the provision of a minimum of 1 director in the *CG* guidelines. This situation indicates that boards are not independent enough to control accruals by management choice i.e., *CA*. It is also evident that the *BS* minimum is 3 compared to the required level of 5 in the *CG* guidelines, which is an indication of dysfunctional board. More revealing is that the presence of *DP* in the corporate boards was 26 percent though *CEO* duality is not permitted in *CG* guidelines. Again, *IO* was 20 percent which highlights the fact that institutional investors have either a limited role or no role at all on the corporate boards. Also worth noting is that only 22 percent of the sample companies were audited by large audit firms with international ties, indicating that the quality of audited annual reports of most of the corporate entities is poor and open to discussion. Corporate accruals and the rate of dominant personality were very high, while board independence was very low, far below the suggested levels of the *SEC*. Similarly, about four fifths of the listed companies were audited by non-reputed small audit firms with no international ties. Moreover, almost all stakeholders, including existing and potential investors, have little faith in financial and non-financial corporate disclosures, and as such they check both the electronic and print media to keep abreast of corporate-sector misdeeds. Hence, the present *CG* practices in Bangladesh are highly criticized by corporate stakeholders and the open-minded segments of society, and are not acceptable to many developing countries, let alone the developed ones.

● **Table 1. Descriptive statistics**

	Minimum	Maximum	Mean	Std. Deviation
<i>CA</i>	-0.37	4.13	0.35	0.52
<i>BI</i>	0	1	0.15	0.14
<i>DP</i>	0	1	0.26	0.44
<i>BS</i>	3	17	7.40	2.29
<i>IO</i>	0	0.86	0.20	0.21
<i>GP</i>	0.05	0.94	0.41	0.22
<i>EA</i>	0	1	0.22	0.42

If we look at the results from the correlation matrix, Table 2 shows that there are no multicollinearity issues between the independent variables. The examination of multicollinearity between independent variables is necessary because if multicollinearity issues exist then we should drop the problem variable from the model. Judge *et al.* (1985) and Bryman and Cramer (1997) suggest that simple correlation is not harmful unless they exceed 0.80 or 0.90. In the interpretation of the results of the multiple regression analysis, the observed correlations did not exceed 0.80 and are therefore not considered harmful.

● **Table 2. Correlation matrix**

	<i>BI</i>	<i>DP</i>	<i>BS</i>	<i>IO</i>	<i>GP</i>	<i>EA</i>
<i>BI</i>	1	-0.133	0.03	0.153	-0.127	0.13
<i>DP</i>		1	-0.061	-0.17	0.083	-0.158
<i>BS</i>			1	0.092	-0.104	.219*
<i>IO</i>				1	-.410**	.389**
<i>GP</i>					1	-.306**
<i>EA</i>						1

*Significant at the 0.05 level (one-tailed). **Significant at the 0.01 level (one-tailed).

If we look at the backward linear regression analysis, Table 3 shows a significant relationship between *CA* and *CG*. It can be seen that *GP* has a significant positive effect on *CA* at the five-percent significance level. The other independent variables do not have any significant (linear) effect on *CA*. The results of this study reveal an agency problem between shareholders and corporate management in Bangladesh. In this context, it could be assumed that corporate management uses discretionary power to overstate or understate earnings to achieve their desired goals. They are in a unique position to use their discretionary power to produce fraudulent financial reports and it is well known that fraudulent financial reports do not depend on any regular variables in the business cycle but rather on the mindset of corporate management. The linear correlation between *GP* and *CA* shows that corporate management frequently over-reports or under-reports corporate earnings to exploit the shareholders, primarily the minority shareholders. The results of this study are therefore congruent with the definition of *CA* provided earlier in this paper.

● **Table 3. Estimated linear models (Backwards regression)**

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	0.163	0.290		0.561	0.577
	BI	-0.14	0.459	-0.037	-0.305	0.762
	DP	0.046	0.145	0.039	0.316	0.753
	BS	0.006	0.028	0.025	0.200	0.843
	IO	-0.526	0.340	-0.216	-1.547	0.127
	GP	0.5	0.319	0.21	1.566	0.122
	EA	0.237	0.170	0.19	1.395	0.168
2	(Constant)	0.205	0.200		1.021	0.311
	BI	-0.14	0.455	-0.038	-0.308	0.759
	DP	0.045	0.144	0.038	0.313	0.755
	IO	-0.527	0.338	-0.216	-1.561	0.124
	GP	0.498	0.317	0.209	1.572	0.121
	EA	0.243	0.165	0.195	1.469	0.147
3	(Constant)	0.183	0.186		0.982	0.330
	DP	0.05	0.142	0.042	0.349	0.728
	IO	-0.535	0.334	-0.22	-1.600	0.115
	GP	0.504	0.314	0.212	1.605	0.114
	EA	0.24	0.164	0.192	1.465	0.148
4	(Constant)	0.2	0.178		1.122	0.266
	IO	-0.548	0.330	-0.225	-1.661	0.102
	GP	0.503	0.312	0.212	1.615	0.111
	EA	0.234	0.162	0.188	1.447	0.153
5	(Constant)	0.255	0.175		1.454	0.151
	IO	-0.403	0.317	-0.166	-1.273	0.208
	GP	0.424	0.309	0.179	1.372	0.175
6	(Constant)	0.107	0.132		0.812	0.419
	GP	0.586	0.284	0.247	2.067	0.043*

*Significant at the 0.05 level (one-tailed).

The implicit characteristics of *CG* are codes of conduct, ethics and integrity. Ethics as a component of good governance is not a new concept. Agency theory is rooted in the ethics and morality of corporate management. Shareholders know little about managers (or agents), hired to act on their behalf. This separation of ownership and control creates an information asymmetry between management and shareholders whereby owners are not provided the information to be able to accurately assess the decisions made by managers (Downes and Russ, 2005). Although shareholder wealth is usually maximized through long-term profitability, the wealth of individual manager is often the result of short-term performance. Unethical managers can take advantage of information asymmetry and use their positions to further their own agendas rather than those of owners, engaging in so-called managerial opportunism (Williamson, 1996).

Information asymmetry allows immoral executives to disguise the real motives behind their actions. They are in a position to hide or distort information in such a way as to make many of their actions appear benign or even in the best interests of the share-

holders. Shareholders have no way of knowing in advance which individuals will display such tendencies (Downes and Russ, 2005). The temptation to artificially drive up share prices, fabricate profits, and hide losses is too great for those whose jobs depend on the results (Zandstra, 2002). Agency theory recognizes this, and companies seek to eliminate or at least reduce the frequency and scope of such behavior by top executives through the use of governance mechanisms such as monitoring and controlling their activities by the corporate board. It is ironic that directors themselves should employ opportunism because it defeats their very purpose. Directors, as part of their fiduciary responsibility to shareholders, should employ an active and proactive approach to ensure they are provided accurate information, rather than a passive and reactive one. Moreover, board of directors and shareholders should be made aware of the risk factors of each of the three conditions of the fraud triangle (Opportunity, Rationalization and Pressure or Incentive) as well as common accounting warning signs. Lastly, capacity building of regulators, stock exchanges, and professional bodies are essential for creating a sound corporate financial reporting environment that helps nurture a strong corporate governance mechanism and culture, and discourages the use of managerial opportunism in Bangladesh.

■ 6. Conclusion

This study concludes that corporate accruals do not depend on governance variables but rather on the mindset of corporate management. To meet forecasts, corrupt management uses its discretion to produce fraudulent financial reports through creative accounting. The study found a significant relationship between corporate accruals and general public ownership, namely shareholders, and this is indicative of agency problems between corporate management and shareholders in Bangladesh. Immoral management takes advantage of information asymmetry when producing corporate financial reports.

Downes and Russ (2005) suggested that directors must enthusiastically seek the truth in any situation by being active and proactive as part of their fiduciary responsibility to the shareholders. It is dangerous when directors act in an opportunist manner, siding with management to deceive shareholders using accruals by management choice in corporate annual reports. We recommend nurturing an ethical, decision-making environment instead of a profit-driven, decision-making one so that corporate accruals can be minimized and if possible, eliminated fully from the corporate world. A profit-driven, decision-making environment can lead to unethical practices by corporate board and corporate management, and sometimes boards form unholy alliances with managers to exploit shareholders, especially minority shareholders primarily through the use of corporate accruals in income statements. Further studies

could be carried out to include time series data analysis to observe managerial opportunism in individual companies and industries.

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Appendix

Definition, Measurement and Range of Values of Variables

Variables	Definition	Measurement	Range of Values
Corporate Accruals (CA)	Corporate accruals are defined as accruals by management choice of sample companies.	Total Accruals less Non-corporate Accruals	Any value
Board Independence (BI)	Board independence is defined as the proportion of independent directors in the board.	Number of independent non-executive directors divided by total number of directors on the board	0 – 1
Dominant Personality (DP)	Dominant personality is defined as the position of Chairman and CEO of sample companies are held by the same person.	Code "1" if Chairman also holds the position of CEO and "0" otherwise	0, 1
Board Size (BS)	Board size is defined as total number of directors in the board of sample companies.	Number of the board of directors of each sample companies.	0 – 20
Institutional Ownership (IO)	Institutional ownership is defined as the ratio of institutional holdings in the ownership structure of the sample companies.	Total number of shares held by institutions divided by total number of issued shares or "0" otherwise	0 – 1
General Public Ownership (GP)	General public ownership is defined as the ratio of shares held by general people in the ownership structure of sample companies.	Total number of shares held by general people divided by total number of issued shares	0 – 1
External Auditor (EA)	External auditor is defined as the international link of the auditor of sample companies.	Code "1" for internationally linked audit firm and "0" otherwise	0, 1

International Links of Audit Firms

Name of the firm	International firm with which it is linked
Rahman Rahman Haq and Co.	KPMG
Hoda Vasi Chowdhury and Co.	Deloitte Haskins and Sells
S.F. Ahmed and Co	Ernst and Young
Howlader Younus and Co.	Arthur Young
A Quasem and Co.	Coopers and Lybrand
M.J. Abedin and Co.	Moor Stephen

● List of Sample Companies

SN	Company Name	SN	Company Name
1	Rahim Textile	35	Ambee Pharma
2	Samorita Hospitals	36	Pama Oil Company
3	Savar Refractories Ltd	37	Salvo Chemical Industry Limited
4	Beach Hatechery Ltd	38	British American Tobacco
5	Tallu Spinning Mills	39	Eastern Housing Limited
6	Imam Button	40	Bata Shoe Company
7	Safko Spinning	41	National Tea Company Limited
8	Anlima Yarn Dyeing Ltd	42	Aziz Pipe
9	Bangladesh Auto Cars Limited	43	Jamuna Oil Company Limited
10	Eastern Cables	44	National Polymer Industries Limited
11	Atlas Bangladesh Limited	45	Quasem Drycells Ltd
12	Meghna Petroleum Limited	46	CMC Kamal Textile Mills Limited
13	Apex Adelchi Footwear Limited	47	Bangladesh Lamps Ltd.
14	Deshbandhu Polymer Limited	48	Metro Spinning Mills Limited
15	Fine Foods Limited	49	MJL Bangladesh Limited
16	Khulna Power Company Limited	50	Aftab automobiles limited
17	GBB Power Limited	51	Square Textiles Limited
18	Libra Infusion Limited	52	Singer Bangladesh Limited
19	The Dacca Dyeng & Manufacturing	53	ACI Formulations Limited
20	R. N. Spinning Limited	54	Prime Textile Spinning Mills Limited
21	BSRM Steels Limited	55	Saiham Textile Mills Limited
22	Bangladesh Thai Aluminium Ltd.	56	H. R. Textile Mills Limited
23	Keya cosmetics Ltd	57	Agricultural Marketing Co Ltd
24	M I Cement Factory Ltd.	58	Apex Spinning & Knitting Mills Limited
25	Fuwang Foods Ltd.	59	Makson Spinning Mills Limited
26	Pharma Aids Limited	60	Malek Spinning Mills Ltd.
27	Kohinoor Chemical Company	61	Jute Spinners Limited
28	Samata Leather Complex Ltd	62	BD COM Limited
29	Sonali Aansh Industries Limited	63	Daffodil Computers Limited
30	Navana CNG Limited	64	United Airways Limited
31	Grameen Phone	65	Standard Ceramic Industries Limited
32	Dhaka Electric Supply Company Limited	66	Beacon Pharma
33	Titas Gas Transmission and Distribution	67	Orion Infusion Ltd.
34	Square Pharmaceuticals	68	Active Fine Chemicals Ltd