DOES CORPORATE GOVERNANCE INFLUENCE EARNINGS MANAGEMENT?: EVIDENCE FROM SINGAPORE

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ABSTRACT

In this study, using Singapore as illustration, we studied the governance practices of 326 listed companies. We found that in Singapore listed companies the chances of recording discretionary accruals is high if the board size is big. We conclude that higher control can lead to better management. These controls must come through appointment of more independent directors for Boards which are big in numbers. Lastly, we also find that if the nomination committee is able to influence the remuneration committee directly or indirectly, the motivation for recording discretionary accruals is higher leading to higher possibilities of earnings management. We accentuate that segregation of responsibilities between the remuneration committee and nomination committee, when Board size is big, will reduce earnings management through discretionary accruals. This will avoid agony of stakeholders due to broken trust, which led to the collapse of American dreams.

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INTRODUCTION

“Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society.” (Cadbury, 2000: pg. 8). The statement implies that corporate governance (CG) covers the interests of stakeholders in general through the utilization of resources and accountability of the top management leading to “stewardship”. The roles of the Board of Directors (BOD) and other key committees are explicit. The core objective of this study is to test whether the role of BOD and other key committee influences Earnings Management (EM) through Discretionary Accruals (DAC).

Similar research studies in the past, particularly after the global financial crisis of 2008 had placed focus on developed countries of the West. In this study, we divert the attention of the readers towards Asian region. We purport that since Singapore is classified as a developed country in the South East Asian region (Mallin, 2011; Phan and Yoshikawa, 2005) and due to its role in establishing high levels of CG principles through South East Asia (Ball et al., 2003), it would be interesting to use Singapore as a case study to further enhance our understanding of EM and the corporate governance factors that are likely to influence EM. Additionally, Singapore is considered as the second ranked in the list of economic freedom as published in the Wall street journal and by The Heritage Foundation in Washington. The country has been holding on to this ranking since the last three years. The implication of this ranking is that the country is not only considered highly liberal in actions and decisions, but also considered an icon in catering to social and economic goals. We thereby believe that the current Singapore study would be a good example not only for developing nations but also for developed nations.

The contributions of this study are twofold. First, we have studied the impact of various governance committees on EM through Discretionary Accruals (DAC). Besides, we have also analyzed the inter-relationships between the independent variables. This is where we deviate from the earlier studies and provide evidence that understanding these interrelationships are important in strengthening the responsibilities of people in charge of governance. Secondly this study would contribute towards the betterment of CG practices in Singapore since though Singapore emerges tops in CG studies conducted among Asian countries (Goodwin and Seow, 2000; Phan and Yoshikawa, 2005; Prowse, 1998), more still needs to be done to ensure that various aspects of CG are fully entrenched in firms especially in the area of EM (Tricker, 2009).
SOME PREFATORY REMARKS ON EM THROUGH DAC
CG is not new and has been in existence, formally, only since 1970s while it was practiced informally since many centuries. The growing business needs, globalization, changing roles of the stewards and more importantly greed, as witnessed in the saga of a ‘fraud decade’ between 1999 and 2009, gave rise to enforced practice of CG. In this regard, some CG codes and companies’ laws now require boards to give assurances about compliance in their regular corporate governance reports to shareholders (Tricker, 2009). The importance of CG therefore, cannot be stressed enough because it makes the difference between smart and dumb choices (West, 2009). It is not about structure or checklists or best practices. It is about substance and outcomes (Prencipe and Bar-Yosef, 2011). The interests of academics in CG research, therefore, have skewed towards earnings management (EM). Many researchers have emphasized that EM, fraud and financial report manipulations are associated with good or bad corporate governance practices (Ali et al., 2007; Ball et al., 2003; Defond et al., 2007; Gunny, 2005; Leuz et al., 2003; Mouck, 2004).

Prior to the Asian financial crisis which started due to Thailand currency crisis (Chec, 2004) and spread rapidly to several other East Asian countries to become a regional financial and economic crisis (Mallin, 2011), it was felt that CG did not appear to be essential to the Asian region. At present, the importance of CG is widely valued across Asia (Doidge et al., 2007; Wallace and Zinkin, 2005). Since the past few years, most countries in East Asia have been keenly revising and refining their regulatory frameworks, in particular, the financial transparency and disclosure practices and most importantly sound CG principles as in the case of Singapore (Ho and Wong, 2001). Researchers in the past have emphasized on the role of the Board covering areas such as, need for proper communication, sound knowledge of business, relevant qualification and experience, coordination skills; integrity and commitment to ethics and predominantly shareholders’ value (Ahn and Waller, 2007; Bauguess et al., 2009; Bhagat and Bolton, 2008; Chen et al., 2009; Lo et al. 2010; Netter et al., 2009).

A number of issues in governance disclosures have been identified by past researchers. These include managers’ opportunistic behavior that reduces transparency of information (Lang and Lundholm, 1996; Malone et al., 1993; Raffournier, 1995); ownership structure of a company which contradicts the interests and objectives of minority shareholders (Bebchuk et al. 2000; Craswell and Taylor, 1992; Hart, 1995; McKinnon and Dalimunthe, 1993; Mork et al. 2004; Raffournier, 1995); the selection of a non-executive director as chairman and the presence of an audit committee which are important for effective CG practices (Davis and Schlitzer, 2008; Kim and Nofsinger, 2007); agency problems due to corporate diversification (Levitts, 1998; Mitton, 2002; West, 2009) and finally EM (Daniel et al., 2011; Huse, 2005; Inyang, 2009; Rezaee, 2009).

The definition of EM by different authors has varied in various academic works (Beneish, 2001; Marnet, 2008). The Certified Fraud Examiners in 1993 defined EM as the deliberate misrepresentation of the financial condition of an enterprise accomplished through the intentional misstatement or omission of amounts or disclosures in the financial statements to deceive financial users. In general, it could be stated that EM seems to occur for the purposes of obscuring a firm’s declining performance through two perspectives; the opportunistic view which states how managers try to find ways to misinform investors for their own selfish gains (Beneish, 2001) and the information view that states that managers use as a means, their own discretion to reveal to investors their private anticipations of future cash flows of the company (Holthausen and Leftwich, 1983). This allows them the opportunity to manipulate a firm’s earnings to their own personal advantage.

Financial reporting system requires companies to use accruals in financial reporting. Previous EM studies (Aria et al., 1998; Bagnoli and Watts, 2000; Chiou rou et al., 2001) have examined managers’ use of Discretionary Accruals (DAC) to alter reported income between financial periods. DAC is a non-obligatory expense (e.g. an anticipated management bonus, advertising or R & D expenditure) that is not yet realized but is nonetheless recorded in the accounts book (Teoh et al., 1998). The reversing nature of accruals (Rahman and Ali, 2006; Sarkar et al., 2006) makes it possible that a firm which had large income increasing accruals in one year will have to reverse them in the subsequent year allowing loopholes for financial misstatements.

In Singapore, like other countries, the BOD forms a key part of the CG structure of companies since it links the capital providers (shareholders) to the people who create value from that capital (managers). The board’s main role is to monitor and control management on shareholders’ behalf (Wallace and Zinkin, 2005) so as to ensure that the shareholders’ investments in the various companies are being efficiently and effectively utilized. Hence, Board size (BSIZE) is considered as the first independent variable in this study. Limited studies have provided insights on the impact of number of members on the Board to EM through Discretionary Accruals (DAC) (Abed et al., 2012; Alves, 2011).

The Codes of CG also states that the board should comprise of at least one-third independent directors in order to portray and practice rigidity in governance. This gives rise to the second independent variable, Board Independence (BINDIP). Researchers in the past have deliberated that having more independent directors on Board reduces the chances of Earnings management (Kent et al., 2010; Peasnell et al., 2005) while Abed et al. (2012) have claimed that trying to have independent board could be a futile exercise and could only add on to distortions in financial reports.
The Codes of CG further specify clear division of responsibilities between the Chief Executive Officer (CEO) and chairman positions (Carver, 2010; Chee, 2004) implying that the positions of CEO and Chairmanship should be held by separate persons. The third independent variable chosen is the duality of roles of CEO (CEODUAL). The code also favors the establishment of Audit committee (AC), Nomination Committee (NC) and Remuneration Committee (RC). Therefore the fourth, fifth and the sixth independent variables have been chosen to be AC, RC and NC. Various researchers have predicted varied outcomes with the establishment of AC, NC and RC (Agrawal and Chadha, 2005; Daniel et al., 2011; Ghosh et al., 2010). In this research, we consider CG structure as comprising of BINDP, CEODUAL, AC, NC, and RC.

Theoretical framework and hypotheses development

We use broken trust theory to explain the effectiveness of corporate governance on EM in Singapore listed companies for the following reasons. First, the Broken Trust (BT) theory is primarily based on an “Agency” theory from economic literature and a “Stewardship” theory from psychology literature (Albrecht, Albrecht, and Albrecht, 2004). The theory incorporates a shared mutual element of some degree of trust which is transferred from shareholders to the firms’ managers (Choo and Tan, 2007). Consequently, when fraud is perpetrated by these same managers, they intentionally break the trust that was bestowed on them by the shareholders thereby betraying them. Secondly, this theory perfectly explains through its variables how the pressure to ensure a company remains highly profitable leads managers to seek opportunities to manipulate a company’s financial earnings and later rationalize that they did it for the sake of the shareholders to protect their interests and to maintain the company’s reputation and public image. The research framework is given in Figure 1.

BSIZE and EM through DAC

Boone et al. (2006) have provided evidence that board size tends to grow as the firms diversify. However, an optimal size of the board is what will help to act as a control mechanism (Beiner et al, 2004) and can positively influence performance of the board (Abed et al. 2012; Alves, 2011; Zhou and Chen, 2004). In spite of these studies, there are limited findings on whether or not BSIZE can influence EM. In Singapore, some firms have as high as 15 members on the board. Based on the BT theory, we believe it is easy for the members of the board to collude in any illegitimate activities. We therefore hypothesize that higher BSIZE can influence higher EM through DAC.

Hypothesis 1: There is a positive relationship between BSIZE and EM through DAC.

BINDP and EM through DAC

Independence of the board of directors is the focus of most codes of governance. Based on BT theory, it is perpetuated that a board with more independent directors is less likely to indulge in creative accounting thereby minimizing EM. Most codes recommend a minimum of one-third independent directors. Researchers have largely tried to analyze if the requirement of one-third independent directors have caused a reduction in EM and again mixed views were presented. While some researchers have found a negative relationship (Peasnell et al., 2005; Kent et al., 2010) some researchers have gone to the extent of stating that trying to have independent directors is a wasted exercise (Abed et al., 2012). This gives rise to the second hypothesis:

Hypothesis 2: There is a significant relationship between BINDP and EM through DAC.

CEODUAL and EM through DAC

Most governance requirements, particularly, the SOX, prefers that companies split responsibilities, particularly between the CEO and the Chairman. The companies must have two different individuals handling the two roles separately. In the event they are unable to have two separate individuals they shall disclose the reasons for non-compliance. Split of responsibilities is likely to give advantages of decentralization thereby leading to lower EM (Chen and Liu, 2010). Based on BT theory, it can be argued that if the roles of CEO and Chairman are not split, then it becomes easy for the CEO/Chairman to manipulate and rationalize the results. This implies that when BOD practices CEO duality there are higher possibilities of EM. This gives rise to the third hypothesis:

Hypothesis 3: There is a positive relationship between CEODUAL and EM through DAC.

ACSIZE vs EM through DAC

The CG structures also encourage companies with good corporate governance to have AC with a minimum of three directors, with at least one director specialized in finance and accounting. Well-qualified members on the AC who have frequent meetings are likely to have lesser EM (Saleh et al., 2007). We argue based on BT theory that a qualified AC will not relent to pressure and manipulate the earnings under any
circumstances. Since it is optional to the companies, many companies limit the size of the committee to three members, reflecting on the costing strategies of the companies. However, it has been evidenced that there is a significant relationship between ACSIZE and EM (Ghosh et al. 2010; Zhou and Chen, 2004) though it is not certain if higher ACSIZE would reduce EM. We, therefore, hypothesize that higher the ACSIZE lower will be the EM.

**Hypothesis 4:** There is a negative relationship between ACSIZE and EM through DAC.

**RCSIZE and NCSIZE vs EM through DAC**

Similar to the AC, the RC and the NC are also required by companies as CG ‘Best Practices’ each of which must have at least three members. Researchers have largely researched on the overall impact of CG ‘best practices’ on EM while very little is done to test independently if RC and NC have an impact on EM. Our research covers this aspect and we hypothesize that RC size and NC size have an impact on EM (Agrawal and Chadha, 2005; Chtourou et al., 2001). Theoretically, the idea of having RC and NC as a part of CG structure is to ensure more controls and vigilance in the recruitment process and remuneration structures. It is therefore assumed that more qualified members on these committees would help to reduce EM by not succumbing to pressures to manipulate earnings (BT theory).

**Hypothesis 5:** There is a significant negative relationship between RCSIZE and EM through DAC.

**Hypothesis 6:** There is a significant negative relationship between NCSIZE and EM through DAC.

**Mediating role of BSIZE between CG structure and EM through DAC**

The corporate governance structure is framed around the presence of few important attributes like independence of board (BIND), separation of duties between CEO and Chairman (CEODUAL), presence of audit committee (ACSIZE), remuneration committee (RCSIZE) and nomination committee (NCSIZE). The relationship between BSIZE and CG structures has been explored in a number of ways. BIND has been explored by Chen and Basil (2012). They have established that, in China, a higher BSIZE leads to lower independence, thereby, proving a negative relationship between BSIZE and BIND indicating presence of EM. Authors have established that more outside directors can justify a higher BSIZE leading to lower EM (Ho & Wong, 2001). It has been witnessed that in Canadian firms the presence of outside directors in the audit committee has resulted in increased BSIZE and has resulted in segregation of duties between the board chairperson and the CEO/president positions leading to lower EM (Beasley and Salterio, 2001). Yunos (2011) supports that BSIZE does not in fact matter in determining firm performance while the BSIZE can be substituted by the relevant qualification and experience of the board, hoping to provide better controls to reduce EM. Garg (2007) claimed that, in India, “Cross-Board” phenomenon must be considered while considering appointment of Independent Directors in order to monitor performance and EM. Ramdani and Witteloostuijn (2010) have found that the BSIZE moderates the effect between CEODUAL and firm performance. The authors have emphasized that in order to have a split of duties between CEO and Chairman it is important to have higher board size with more external directors, which can act as control mechanisms. Abeyasekara (2010) findings reveal that the presence of non executive directors on the remuneration committee will benefit, if higher board size is warranted, again justifying controls on EM. Chen and Nowland (2010) however purport that a cost benefit issue often arises when determining the quantity and quality of the members in ensuring strong CG structure. A good CG structure can help to reduce EM by effectively monitoring the BSIZE and the quality of the board. A strong CG structure is likely to have higher members on the board leading to lower EM since higher BSIZE is justified by the presence of external qualified directors on the board. This leads to the hypothesis that:

**Hypothesis 7:** BSIZE mediates the relationship between corporate governance structure (BINDP, CEODUAL, ACSIZE, RCSIZE, and NCSIZE) and EM through DAC.

**METHOD**

We chose all the 400 companies listed on the Singapore Stock Exchange (SGX) main board for the years 2010 and 2011. Prior to 2010, Singapore introduced many changes in the guidelines for corporate governance. The years 2010 and 2011 represent the stable period. 2012 and 2013 (unaudited) recorded virtually the same information. We therefore believe that the data collected from the years 2010 and 2011 would be good representatives for this research. The companies listed operate in diverse industries such as manufacturing, agriculture, hospitality, technological, transport, telecommunications, engineering, insurance and banking. Of the 400 companies initially selected, 74 companies either had some information regarding the board missing from their annual reports or they had insufficient data on DataStream to enable us to estimate DAC. This eventually left us with a final sample of 326 firms from which we obtained our raw data. Since DAC had to be valued, we analyzed the valuation models used in the past. We found six most popular models from past literatures;
DeAngelo Model (1986), the Healy Model (1985), the Jones Model (1991), Dechow et al’s Modified Jones Model and Industry Model (1996) and the DeFond & Jiambalvo’s Cross-sectional Jones Model (1994). In this study we use a modified Jones Model (1991). This model is proven to be the most effective in detecting EM among the various competing models (Dechow et al., 1996; Hadani et al., 2011) as well as powerful (Davidson et al., 2005) and dependable (Guay et al., 1996). It also draws from firms’ actual accounting numbers. In this study, the DAC for each firm i in year t are defined as the residual from the regression of TAC-Total Accruals (Cash from Operations-Net Income) on two factors explaining NDA-Non-Discretionary Accruals (Change in Revenue and Fixed Assets level subject to depreciation).

**Discretionary accruals model of earnings management (Source: Jones (1991))**

\[ DAC_{it} = \frac{TAC_{it}}{A_{it-1}} \left[ \alpha_i \left( \frac{1}{A_{it-1}} \right) + \beta_1 \left( \frac{\Delta RE_{it}}{A_{it-1}} \right) + \beta_2 \left( \frac{PPE_{it}}{A_{it-1}} \right) \right] \]

Where:

- \( DAC_{it} \) = Discretionary accruals for firm \( i \) in year \( t \)
- \( TAC_{it} \) = Total accruals for firm \( i \) in year \( t \)
- \( A_{it} \) = Total assets for firm \( i \) at the end of year \( t-1 \)
- \( \Delta RE_{it} \) = The change in net sales for firm \( i \) between year \( t-1 \) and year \( t \)
- \( PPE_{it} \) = Gross property, plant and equipment in year \( t \)
- \( \alpha, \beta_1, \beta_2 \) = Firm specific co-efficient estimates

BSIZE represents the number of directors and key members on board. Researchers in the past have evidenced that higher board size are negatively related to firm performance (Guest, 2009). Pozen (2010) study reiterated that all the companies which collapsed in 2008 had very large boards with many independent directors and suggested that the ideal Board size should be 7. Some professional magazines have published and stated the ideal Board size to be 8. For the purpose of this study, we have assigned value of 0 if the company had a Board size smaller than or equal to 7 and 1 if the Board size was larger than 7.

An independent Board shall act in the best interest of the company and its stakeholders (Peasnell et. al. 2005) thereby reducing the likelihood of EM resulting from DAC (Kent et. al. 2010). The corporate codes of governance beginning from the Cadbury Committee and as followed by other countries including Singapore have emphasized a need for at least one third of the Board of Directors to be independent. Therefore, we have assigned the value 1 if there were at least 1/3 independent directors and 0 if there were less than 1/3 independent directors. Similar to the Board independence most governance practices including the Sarbanes Oxley, 2002 have emphasized the need to have split of responsibility between the CEO and chairman although its implementation is left optional to the company. The split of responsibility is required to ensure the balance of power so that no single individual holds too much power thereby enhancing accountability and transparency resulting in reduced fraudulent financial reporting. In our study CEO duality indicates that the companies are having a single director taking on the dual role of CEO and Chairman (Chee 2004; Carver 2010). Therefore we allot a value of 1 when there is CEO duality and 0 when there is separation of duties.

The Cadbury committee (1992) in its codes of governance further specifies the need to have Audit Committee, Nomination Committee and the Remuneration committee all of which ideally shall have at least three members. Past studies have also justified that having three or more members in each of these committees can help to reduce EM through DAC (DeZoort et al., 2002; Walker, 2004; Vafeas, 2005; Agarwal and Chadha, 2005). We, therefore, allot 1 if each of the above committees had 3 or more members and allot 0 if the number of members were less than 3. We used structured equation model and tested the model with LISREL. We have used SEM since we have tested the inter-relationships between the independent variables besides hypothesized relationships.

**DISCUSSION OF RESULTS**

**Descriptive statistics**

Out of 326 companies listed on the SGX main listing, 97% of the firms have at least one third or more than one third independent directors in their board, implying a strong compliance of the basic CG initiatives. About 35% of the companies have CEO duality where both the chairman and CEO positions are held by same person, revealing that most companies tend to comply with the separation of responsibilities between the CEO and Chairman. It has been observed that most companies have at least 3 members in their audit, remuneration and nomination committees respectively. Out of the listed companies, 99% of companies have audit committees, 94% companies have remuneration committees and 94% have nomination committees. This shows that a majority of the firms listed on the SGX main board have complied with the Code regarding board committee composition. It also indicates that there are some companies with non-compliance.
Bivariate correlation

The correlation matrix is given in Table 1. As observed from the correlation matrix, EM through DAC has a significant correlation with BINDP, BSIZE, ACSIZE and RCSIZE but not with CEODUAL and NCSIZE. CEODUAL has no correlation with any other committees except BSIZE. BSIZE is positively correlated with all committees except CEODUAL to which it is negatively correlated. This indicates that a lower Board size could be one of the factors leading to CEO duality, which could pose a threat for EM through DAC. NCSIZE seems to have no correlation with EM through DAC, but is highly correlated with RCSIZE. BSIZE has high correlation with BINDP indicating that a higher Board size can be justified with more independent directors.

### TABLE 1 DESCRIPTIVE STATISTICS AND CORRELATIONS

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<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>DAC</th>
<th>BINDP</th>
<th>BSIZE</th>
<th>CEO DUAL</th>
<th>ACSIZE</th>
<th>RCSIZE</th>
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<td>1</td>
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<td>.27**</td>
<td>.41**</td>
<td>-.07</td>
<td>.17**</td>
<td>14**</td>
<td>.09</td>
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<tr>
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<td>10</td>
<td>3.27</td>
<td>1.48</td>
<td>.27**</td>
<td>1</td>
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<td>-.09</td>
<td>.41**</td>
<td>.33**</td>
<td>27**</td>
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<td>14</td>
<td>6.96</td>
<td>1.85</td>
<td>.41**</td>
<td>.61**</td>
<td>1</td>
<td>-.15**</td>
<td>.43**</td>
<td>.35**</td>
<td>32**</td>
</tr>
<tr>
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<td>.35</td>
<td>.47</td>
<td>-.07</td>
<td>-.09</td>
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<td>-.08</td>
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<td>.01</td>
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<td>.17**</td>
<td>.41**</td>
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**Correlation is significant at the 0.05 level.**

**Legend:** DAC: Discretionary Accruals; BINDP: Board Independence; BSIZE: Board Size; CEODUAL: CEO Duality; ACSIZE: Audit Committee Size; RCSIZE: Remuneration Committee Size; NCSIZE: Nomination Committee Size

### FIGURE 1 RESEARCH FRAMEWORK
Legend: DAC: Discretionary Accruals; BINDP: Board Independence; BSIZE: Board Size; CEODUAL: CEO Duality; ACSIZE: Audit Committee Size; RCSIZE: Remuneration Committee Size; NCSIZE: Nomination Committee Size

Hypotheses testing
We performed the hypotheses testing using Lisrel 9.1 student version. Initially, we ran the model as specified by the framework. But the model fit was very poor and all the dimensions of corporate governance structure did not have significant relationships with EM through DAC as hypothesized earlier. Based on the suggestions given by the modification indices, weak evidence from earlier research and the correlations indicated in Table 1, we re-specified the model as follows: (1) removed the direct relationships between the dimensions of corporate governance structure and EM through DAC and (2) added the inter-relationship between RCSIZE, ACSIZE and NCSIZE. The fit statistics satisfies the acceptable values specified by Hair et al. (2010) and the statistics are: Root mean square error of approximation = 0.022 (threshold maximum = 0.08), Chi-square/degrees of freedom = 1.15 (threshold maximum = 3), Normed fit index (NFI) = 0.99 (threshold minimum = 0.90), Comparative fit index = 0.99 (threshold minimum = 0.90), Goodness of fit index = 0.99 (threshold minimum = 0.90), and Root mean square residual (RMR) = 0.018 (threshold maximum = 0.08). The final framework with significant relationships is given in Figure 2.

The hypotheses testing reveal several interesting results. First, the hypothesis that explains the relationship between board size and earnings management is strongly supported ($\beta = 0.41$, $p$-value = 0.000). The result signifies that the board size has a strong positive relationship with discretionary accruals indicating that if the number of directors on the board is higher it is likely to impact discretionary accruals leading to earnings management in Singapore listed companies. There is little evidence from past researches on whether or not Board size matters in determining earnings management. From the results we believe that in Singapore a higher number of members on the Board could indicate possibilities of collusion and motivation for discretionary accruals contributing towards earnings management. In the current scenario, Singapore listed companies have as high as 15 members on the Board. The result of this research comes as a caution to these companies that either the companies must exercise more controls or restrict the number of directors on Board to reduce earnings management. A similar study conducted on fund management by Ferris and Xuemin (2007) has concluded that Board size has a value impact on shareholders’ earnings. It is, therefore, imperative that while designing a board, companies must give attention to shareholders’ value.

Among the dimensions of corporate governance structure, BINDP, CEODUAL, RCSIZE and ACSIZE have significant relationships with BSIZE. A number of past researches have suggested that when there are more independent directors on the board it will negatively impact earnings management indicating that more independent directors on the Board will lead to lower earnings management (Klein 2002; Peasnell et al. 2005; Sarkar et. al. 2006; Xie et al. 2003). We indirectly support these findings by stating that when the number of members of the Board is high, strong controls can be assumed by having more independent directors. With higher board size, companies will be able to introduce stronger controls and instigate split of responsibilities between CEO and chairman, reducing the threat of EM through DAC. Similarly a higher Board size can be justified with more qualified members like having financial experts. The Audit committee can be strengthened with more number of qualified members contributing towards lower EM through DAC. Remuneration committee on the other had are strategically placed to ensure that the compensation packages commensurate with the quality and quantity of work produced by the Board members. This again requires specialized members to safeguard the funds of the stakeholders by using them in a rightful manner unlike what was witnessed in past corporate collapses like that of Satyam Computers, WorldCom as well as Parmalat, where the members of the top management managed to fill their own pockets at the cost of the stakeholders’ wealth. Higher Board size can lead to better controls and lower EM through DAC.

FIGURE 2. FINAL FRAMEWORK (WITH SIGNIFICANT RELATIONSHIPS)
We have tested the mediation effect of BSIZE between (1) BINDP and EM through DAC, (2) CEODUAL and EM through DAC, (3) RCSIZE and EM through DAC and (4) ACSIZE and EM through DAC using the Sobel’s Test. Based on the results of the test, we observe the following: (1) BSIZE mediates the relationship between BINDP and EM through DAC (Sobel’s test value = 6.687, p-value = 0.000), implying that with higher board size it is possible to have more independent directors reducing the incentives of EM through DAC; (2) BSIZE mediates the relationship between CEODUAL and EM through DAC (Sobel’s test value = 2.263, p-value = 0.024), implying that with higher board size it will be possible for companies to evidently segregate the duties between the Chairman and the CEO leading to more controls and lesser incentives for EM through DAC; (3) BSIZE mediates the relationship between RCSIZE and EM through DAC (Sobel’s test value = 2.605, p-value = 0.009), inferring that with higher board size it will be easier to keep controls on the remuneration and benefits distributed to the directors thereby lowering the incentives of EM through DAC; and (4) BSIZE mediates the relationship between ACSIZE and EM through DAC, deducing that higher board size will allow companies to recruit more financial specialists who can have a vigilance over the stakeholders’ funds being misused for enriching oneself (Sobel’s test value = 3.356, p-value = 0.001). This was one of the core issues of the corporate collapses in America and around the world explaining the ‘fraud triangle’ and America’s broken trust theory.

Finally, it is evidenced from the model that there is a strong relationship between the remuneration committee and the nominations committee in Singapore listed companies leading to higher discretionary accruals. We bring in a new perspective which is hardly addressed in many past researches through this relationship. We establish that any strong relationship between the nomination committee and the remuneration committee could lead to higher motivation for recording discretionary accruals leading to earnings management. Strong relationship can be witnessed if the same directors take a place in the remuneration committee as well as the nominations committee or if the chairman of the remuneration committee and the nomination committee is the same or if the directors of the nomination committee are in a position to directly or indirectly influence the directors of the remuneration committee. In such cases motivation for discretionary accruals will be higher to gain personal benefits. A few researchers have shown how choice of personal benefit could lead to manipulation of financial statements and earnings management (Anand, 2008; Bhagat and Bolton, 2008; Haw et al., 2011; Lo et al., 2010). We support the view by stating that earnings management is likely to be higher when the nomination committee is able to influence the remuneration committee directly or indirectly. This has a very significant impact for a country like Singapore which has low population but high economic growth.

**CONCLUSIONS AND RECOMMENDATIONS**

In this research, we examined the relationship between Board characteristics and EM through DAC in Singapore listed companies. Singapore being a developed country among the South East Asian countries and having gained the reputation for good governance practices, leads the other developing and underdeveloped countries towards ‘best practices’ in corporate governance. It was thus a motivation for us to study the factors that would lead to EM through DAC in Singapore listed companies. Using the data from 326 companies for the years 2010 and 2011, we measured the discretionary accruals using the modified Jones model. We developed independent variables based on board characteristics and solved a SEM through LISREL.

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**Legend:** DAC: Discretionary Accruals; BINDP: Board Independence; BSIZE: Board Size; CEODUAL: CEO Duality; ACSIZE: Audit Committee Size; RCSIZE: Remuneration Committee Size; NCSIZE: Nomination Committee Size
We found that in Singapore listed companies the chances of recording discretionary accruals is high if the board size is big and we believe that collusion among the Board of Directors could be a motivation for such action. We conclude that higher control can lead to better management. These controls must come through appointment of more independent directors for Boards which are big in numbers. Lastly, we also find that if the nomination committee is able to influence the remuneration committee directly or indirectly, the motivation for recording discretionary accruals is higher leading to higher possibilities of earnings management.

**MAJOR CONTRIBUTIONS AND LIMITATIONS**

The significance and contribution of this study is twofold. First, the practical implications of this research will be relevant for Companies listed in the Singapore stock exchange. We justify that companies must maintain a good balance in the board composition. A higher board size can be justified with more independent directors and the members of the remuneration committee and the nominations committees must not overlap in order to provide better controls. Second, this finding contributes significantly to the ‘Broken Trust Theory’ which is associated with the ‘fraud triangle’. The theory incorporates a shared mutual element of some degree of trust which is transferred from shareholders to the firms’ managers in both agency and stewardship theories. Consequently, when fraud is perpetrated by the same managers, they intentionally break the trust that was bestowed on them by the shareholders thereby betraying them. This was the lesson learnt from the corporate collapses in the United States which contributed to the collapse of ‘American Dreams’. This is particularly significant and different for Asian countries. In Asia, institutional investors have a very small role to play as compared to developed countries like the US or the UK. Due to the heavy investment by the institutional investors in the developed countries the agency role is perceived to be taken on by the institutional investors. This gives adequate assurance to the stakeholders particularly when the focus of regulatory proclamations is primarily skewed towards the rights of the shareholders. In Asia, on the contrary, the onus of protecting the minority shareholders and the foreign investors is vested in the hands of the insiders. They are expected to do so through arm’s length transaction, thereby making it pertinent to have good corporate culture backed by transparency of information.

Finally, this theory perfectly explains through its variables that the *pressure* to ensure that a company remains highly profitable, leads managers to seek *opportunities* to manipulate the firm’s financial earnings and later *rationalize* that they did it for the sake of the shareholders, to protect their interests and to maintain the company’s reputation and public image.

The limitation of this study is that the views are confined to Singapore and must be validated by testing in other countries. Future researchers could extend this study to other countries in South East Asia. This article also opens up opportunities for future researchers to study the extent of quality information in the disclosures made.

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