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Surplus Free Cash Flow and the Effect of Corporate Governance on the Informativeness of Earnings

Redhwan Ahmed Al-Dhamari and Ku Nor Izah Bt Ku Ismail
College of Business, University of Utara Malaysia, 06010 Sintok, Kedah, Malaysia

Abstract: This study examines whether the association between selected governance variables and earnings informativeness depends on surplus free cash flow agency problem in the Malaysian environment where concentrated shareholding by family members is common and minority investor protection is relatively weak. The results find that boards with a higher proportion of independent directors and competent audit committees are more likely to report informative earnings numbers. We also demonstrate that firms with independent chairman, small boards and high surplus free cash flow experience informative earnings figures. However, in contradiction to the expectation are the negative influence of audit committee meetings, audit committee competence and shareholding by executive directors when agency problems of surplus free cash flow are high. The findings of this study suggest regulatory bodies to design corporate governance code that is suitable for Malaysian environment and can help regaining investors' confidence towards accounting and financial information.

Key words: Earnings informativeness, governance structure, ownership structure, surplus free cash flow, Bursa Malaysia

INTRODUCTION

Increasing attention given by academic researchers to corporate governance mechanisms after the Asian financial crisis and financial reporting scandals suggests that good corporate governance would curb unethical management behavior of earnings management, thus enhancing the reliability and usefulness of earnings information. It is also believed that the presence of sound governance system can help in maintaining investors' confidence towards the integrity of capital markets (Hashim and Devi, 2007). To the extent that governance mechanisms are successful in aligning managers' interests with those of shareholders', managers are less likely to adopt income-increasing discretionary accruals approach that eventually would deteriorate the informativeness of earnings (Sivaramakrishnan and Yu, 2008). Earnings information is considered informative if it influences the expectation of financial information users with respect to the quality of earnings information as reflected in a change in share price (Kormendi and Lipe, 1987).

Nevertheless, evidence to date on the association between governance practices and earnings informativeness are unclear and ambiguous. While several studies support the positive contribution of governance mechanisms on earnings informativeness (Chang and Sun, 2010; Dimitropoulos and Asteriou, 2010; Petra, 2007), evidence contained by Lin *et al*. (2009) and Sarikhani and Ebrahimi (2011) show that corporate governance mechanisms are not significantly associated with earnings informativeness.

A conceptual study of AL-dhamari and Ku Ismail (2011) states that not taking into consideration agency conflicts of free cash flow might be the reason for the inconclusive findings mentioned before. Furthermore, it is argued that the effectiveness of corporate governance practices are not homogenous but vary with the presence of free cash flow agency problem in specific firms (Chi and Scott-Lee, 2010; Lasfer, 2002). The free cash flow agency theory has been established based on the premise that the presence of free cash flow agency conflict between managers and shareholders causes governance practices to be more vigilant to mitigate the conflict (Jensen, 1986). Jensen (1986) argues that in a situation where a firm has high free cash flow but low growth prospects (surplus free cash flow in the study), the firm managers are more likely to invest the free cash in negative return projects. As a consequence due to the negative impact of these projects, managers are expected to opportunistically manipulate financial reports that would eventually

Corresponding Author: Redhwan Ahmed Al-Dhamari, College of Business, University of Utara Malaysia, 06010 Sintok, Kedah, Malaysia

deteriorate the informativeness of earnings (Bukit and Iskandar, 2009; Chung *et al*., 2005; Rahman and Mohd-Saleh, 2008). Therefore, the market will expect the existence of good governance mechanisms to effectively restrict the unethical behavior of managers and ensure earnings numbers are of high quality. Although, more attention is given as to how corporate governance practices improve the informativeness of earnings, much less is known about the role of free cash flow agency problem in earnings informativeness-corporate governance relation.

The purpose of this study is to investigate the relationship between corporate governance mechanisms (i.e., board of director characteristics, audit committee characteristics and ownership structure) and earnings informativeness of firms in Malaysia. It also examines whether the hypothetical association discussed earlier is a function of firms surplus free cash flow. In particular, this study investigates the interactive effect of corporate governance and surplus free cash flow on earnings informativeness after the amended listing requirements were made effective in 2008. Since the year 2008, Malaysian public listed firms have been required to have audit committees whose members are non-executives and at least two-third of them are independent. Moreover, the members should be financially literate and at least one of them should be a member of an accounting association or body (Revised Malaysian Code on Corporate Governance 2007).

For several reasons, Malaysia is a unique and interesting setting to examine the capability of governance mechanisms to mitigate free cash flow agency problem and accordingly enhance the informativeness of earnings. First, most of Malaysian public listed firms are held by large controlling shareholders who are typically the management as compared to those of developed countries (Abdullah, 2006; Cheung and Chan, 2004). As such in Malaysia, rather than traditional owner-agent conflict, the conflict of interests has to be between controlling shareholders and minority shareholders over firm's resources (Claessens and Fan, 2002). Second, La Porta *et al*. (1998) provide evidence that the quality of minority shareholder protection in Malaysia is relatively poor. A high quality of minority shareholder protection is necessary for constraining controlling shareholders' propensity to waste firms' resources in non value maximizing activities. Third, despite the increasing demand for quality accounting information in the last 2 decades, the change in quality is low in Malaysia (Fan and Wong, 2002) and investors still have reservations about earnings quality reported by Malaysian firms (Ball *et al*., 2003). Finally, empirical results show that Malaysian public listed firms have excessive free cash flows (Bukit and Iskandar, 2009). Even though agency conflict over firms' cash is perceived as a more severe type of agency conflicts in US firms (Shleifer and Vishny, 1997), it has strongly emerged in Asian countries including Malaysia (Kusandi, 2011; Lee and Lee, 2009). These characteristics provide a unique and interesting research setting to empirically examine the ability of governance mechanism in mitigating the agency conflict of free cash flow and improving financial reporting quality of firms in Malaysia.

This study can contribute to the existing literature in three aspects. First to the knowledge, there is no empirical study that investigates the effect of governance structure and ownership structure on the informativeness of earnings in free cash flow agency problem context. Close to the study are those of Lasfer (2002) who investigates the extent to which the relationship between board of director characteristics and firm value depends on growth opportunities and Chi and Scott-Lee (2010) who examine the role of free cash flow in governance mechanisms-firm value association. The study extends the research by linking governance and ownership structure of Malaysian public listed firms with both high free cash flow but low growth opportunities to the informativeness of earnings numbers. Second in cash holding and the valuation of cash literature, the focus was merely on owning of cash (the ratio of cash to total assets) when examining the governance practices' role in monitoring firms' cash policy and increasing the valuation of the firms' cash (Chen and Chuang, 2009; Dittmar and Mahrt-Smith, 2007; Harford *et al*., 2008; Schauten *et al*., 2011). Researchers extend this line of literature by focusing on free cash flow and growth opportunities as free cash flow agency problem and how strong the elements of governance control can mitigate the problem and enhance the reliability of financial reporting process. Finally, Bukit and Iskandar (2009) focus mainly on how independent directors of an audit committee prevent managers of surplus free cash flow firms from indulging in earnings management activities to mask negative earnings stemming from value destroying investments. This study extends, the research by looking at the way that governance mechanisms of surplus free cash flow firms improve earnings informativeness. Stated differently, the study investigates the relationships between ownership structure, governance structure and earnings informativeness conditioned on the level of surplus free cash flow agency problem.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Corporate governance and earnings informativeness: Since, the publication of the seminal study by Ball and Brown (1968), investors, creditors and other users of financial information have given substantial interest to the reporting of quality earnings numbers. This is due to the fact that financial information users always depend on earnings information contained in financial statements to make investment related decisions and evaluate a particular firm managerial performance. However, the 1997 financial crisis together with the financial reporting scandals of some large companies around the world (such as Enron Corporation, World Com and Tyco International in the US; Parmalat in Italy; Bre-X and YBM Magnex in Canada; Royal Ahold in the Netherlands; Credit Lyonnais and Vivendi in France; Metallgesellschaft in Germany; HIH Insurance Ltd. in Australia; Technology Resources Industries, FA peninsular, Tat Sang, TIME dotCom and Malaysia Airlines System in Malaysia) has shed doubt on the reliability of earnings information released by companies (Hashim and Devi, 2007). This as a result, highlights the need of companies to employ a combination of external and internal attributes of governance to improve the quality of reported earnings numbers.

Corporate governance mechanisms are expected to mitigate agency conflicts between managers and owners stemming from the divergence of ownership from control of a firm (Jensen and Meckling, 1976), reduce the information asymmetry among interested parties concerned with firm activities and consequently allow the market to give greater credence to earnings information released by the firm (Kanagaretnam *et al*., 2007). Corporate governance mechanisms also restore investors' confidence in the integrity of capital markets and thus, attract potential investors to these markets (Hashim and Devi, 2007).

As one of influencing factors board composition affects the board of director effectiveness in the form of enhancing earnings informativeness. The presence of independent directors in boards is expected to constrain self-serving behavior of management and accordingly enhance the reported quality of earnings numbers. In light of this notion, a study by Anderson *et al*. (2003) provides evidence of informative earnings numbers with high percentage of outside directors. Dimitropoulos and Asteriou (2010) provide empirical evidence that board independence is positively and significantly associated with the informativeness of earnings. Based on the findings of these studies, the hypothesis is as follows:

Hypothesis 1: Board independence is positively related to earnings informativeness. Board size plays an essential role in the effectiveness of the board oversight duties. The supporters of the agency theory believe that smaller boards are normally easier to coordinate, quicker in making decisions, less likely to have free-rider problems and less likely to oppose innovation (Dimitropoulos and Asteriou, 2010). Smaller boards also facilitate the influential exchange of ideas between firms/directors and alleviate the coalition costs among board members (Vafeas, 2000). On the other hand, independent directors in larger boards are not expected to control the self serving behavior of management as they encounter difficulties in expressing their opinion (Dimitropoulos and Asteriou, 2010). Contrary to smaller boards in which the responsibilities of monitoring management is well fell in each individual board members, the accountability of monitoring management in larger boards is diffused, thus the probability of board members would effectively fulfill their monitoring duties is weakened (Vafeas, 2000). Consistent with these allegations, Vafeas (2000) documents that firms with smaller boards report more informative earnings figures. Cho and Rui (2009) obtain similar results in which they conclude that board size has a negative and significant influence on the previous informativeness of earnings figures. Based on the discussion, the hypothesis is as follows:

Hypothesis 2: Board size is negatively related to earnings quality. Board leadership structure is another mechanism that affects the board of directors' role in monitoring and controlling a firm management. The advocates of agency theory argue that combining the role of chairman with that of CEO (CEO duality) reduces board independence and thus, empowers managers to seek private interest in lieu of shareholders' interest (Chang and Sun, 2010; Firth *et al*., 2007; Jensen, 1993). In tandem with these assertions, evidence contained in Gul and Tsui (2001) underscores the deterioration of the informativeness of reported earnings as the two roles of a chairperson and a CEO are combined. Moreover, Anderson *et al*. (2003) finds that firms not practicing CEO duality experience more informative earnings numbers. However, due to a high compliance with Bursa Malaysia recommendation that the roles of a CEO and a chairperson be separated, the study examines whether chairman independence would result in improved earnings quality. Therefore, the hypothesis is:

Hypothesis 3: The chairman independence is positively related to earnings informativeness. It has been argued that audit committee independence increases the accuracy

of a firm's financial information and allows capital markets to place greater reliance on the information released by the firm (Anderson *et al*., 2003). Independent directors sitting on an audit committee have greater incentives and tendencies to avoid activities such as financial misstatement that would damage their reputation (Sori *et al*., 2008). This, therefore will lead to informative earnings numbers. Anderson *et al*. (2003) document a highly positive and significant association between audit committee independence and earnings informativeness. Bryan *et al*. (2004) provide empirical evidence that firms with more independent members serving on an audit committee experience informative earnings numbers. Siagian and Tresnaningsih (2011) show that the informativeness of reported earnings improves as the level of audit committee independence increases. Drawing on these studies, the hypothesis is as follows:

Hypothesis 4: Audit committee independence is positively related to earnings informativeness. The frequency of meetings is a vital factor that influences the effectiveness of an audit committee in performing its oversight duties (Lin *et al*., 2009). This is further supported by theBlue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (1999)'s proposition of having frequent meetings by audit committee members to increase their effectiveness in overseeing the financial reporting process and internal control. The usefulness of earnings numbers does not depend only on whether audit committee members are independent but to some extent on other factors, such as the diligence of an audit committee (Chtourou *et al*., 2001). A research conducted by Anderson *et al*. (2003) states that the informativeness of earnings numbers enhances as the number of meetings held amongst audit committee members is high. Moreover, Firth *et al*. (2007) provides similar results in which they conclude that the frequency of audit committee meetings has a significant effect on earnings informativeness. In light of the positive contribution of audit committee meetings, the hypothesis is as follows:

Hypothesis 5: The frequency of audit committee meetings is positively related to earnings informativeness. Having competent and experienced members is another factor that helps an audit committee in successfully accomplishing its oversight duties. Audit committee members with accounting background or experience are expected to better understand financial and accounting information to effectively communicate with external auditors, to increase the capability of the audit committee in detecting earnings management activities and thus, improve the informativeness of earnings (Chang and Sun, 2010). Bryan *et al*. (2004) find that firms with financially literate audit committee members report informative earnings figures. The empirical analysis by Chang and Sun (2010) demonstrates that earnings informativeness enhances with high degree of audit committee competence. Based on the previous, the hypothesis is as follows:

Hypothesis 6: The competency of audit committee is positively related to earnings informativeness. Earnings numbers are expected to provide investors with relevant information that would help them in making correct asset pricing and investment decisions (Yuan and Jiang, 2008). Institutional investors with large stakes of shares in a firm have more capability and tendency to gather, interpret financial statements and detect the firm's opportunistic behavior over earnings numbers (Chung *et al*., 2005; Velury and Jenkins, 2006). The supporters of the active monitoring hypothesis view institutional investors as long-term investors with raving incentives and motivations to closely monitor and control management activities (Jung and Kwon, 2002). In institutional ownership literature, a close monitoring by institutional investors would lead to earnings numbers of high quality (Jung and Kwon, 2002; Korczak and Korczak, 2009; Sarikhani and Ebrahimi, 2011; Velury and Jenkins, 2006). Jung and Kwon (2002) provide evidence of informative earnings numbers with high stock ownership by institutions. Moreover, Velury and Jenkins (2006) point out that firms with high institutional ownership of equity experience informative earnings numbers. Korczak and Korczak (2009) provide similar results in which they conclude that earnings informativeness improves as institutions own a large stake of shares. A research by Sarikhani and Ebrahimi (2011) shows that institutional ownership has a positive and significant influence on earnings informativeness. Drawing on the literature, the hypothesis is as follows:

Hypothesis 7: Institutional ownership is positively related to earnings informativeness. Besides institutional ownership, managerial ownership is a significant device in aligning managers' interest with those of shareholders' (Warfield *et al*., 1995). The advocators of agency theory, expect managerial ownership of equity would reduce moral hazard problem between managers and shareholders and managers with large stakes of equity are less likely to involve in non-optimal activities because value decreasing behavior is costly for them (Jensen and Meckling, 1976). As the conflict of interests between the two parties is removed, managers are less likely to opportunistically manage earnings numbers, thus

enhancing the usefulness of earnings numbers to interested parties. Consistent with these assertions, Vafeas (2000), Warfield *et al.* (1995) and Zhao *et al.* (2008) contend that firms with a high management ownership report earnings numbers that are more informative, supporting agency theory's and alignment hypothesis' contentions of the convergence of managers'-shareholders' interest when management hold a large stake of shares. An empirical research by Vafeas (2000) shows similar evidence that a high equity ownership by management is positively and significantly associated with earnings informativeness. Zhao *et al.* (2008) point out that the informativeness of earnings improves as shareholding by executive directors increases. Following the literature, the hypothesis is as follows:

Hypothesis 8: Managerial ownership is positively related to earnings informativeness.

Corporate governance, surplus free cash flow and earnings informativeness: Jensen (1986) argues that an increase in free cash flow exacerbates managers' incentive to engage in Negative Present Value (NPV) projects. These projects may be of self-interest to managers and may offer them a control over firm resources (Chung *et al.*, 2005). The non optimal action of mangers can increase agency problem by creating value-destroying investments. Value-destroying investments eventually result in reduction of share prices and may endanger senior executive position. To obscure the negative effect of these investments, managers can use opportunistic tools of earnings management to inflate reported earnings (Bukit and Iskandar, 2009; Chung *et al.*, 2005; Rahman and Mohd-Saleh, 2008).

Indulging in such earnings management activities by mangers to make earnings figures more appealing may affect the reliability of reported earnings. Rahman and Mohd-Saleh (2008) find that in Malaysia the stock market discounts earnings value of firms with free cash flow agency problem due to misstatements. As firms with high agency conflict of free cash flow have the tendency to manipulate and misreport their earnings information, it is expected that the market would react negatively to the information and the informativeness of earnings would be less for high free cash flow agency problem firms.

Theories based on agency costs, expect the monitoring role of governance mechanisms to increase with agency conflict of free cash flow (Jensen, 1986). Furthermore, Chi and Scott-Lee (2010) contend that not taking into consideration this conditional nature of corporate governance may lead to erroneous conclusion that governance practices have no significant influence on firm value. As managers of firms with excess cash are more likely to squander the cash in shareholders' wealth non-maximizing activities, having a strong system of corporate governance is necessary for these firms (Chi and Scott-Lee, 2010; Dittmar and Mahrt-Smith, 2007; Harford *et al.*, 2008; Lee and Lee, 2009). In contrast, the corporate governance system has a lesser role in firms with low free cash flows as managers of these firms are not expected to overinvest (Chi and Scott-Lee, 2010). Moreover, firms with low free cash flow usually bond themselves with external financing to finance their investment opportunities. Therefore, since these low free cash flow firms are already subject to monitoring by debt-holders, the role of governance mechanisms as a monitoring device is not expected to be significant (Lasfer, 2002). Besides excess cash, growth prospect is considered an essential factor in the agency conflict of free cash flows. This is owing to the fact that firms with high growth prospects, compared to those with low growth prospects are able to utilize all available cash to finance projects with positive returns (Jaggi and Gul, 1999).

There are number of studies that conclude effective role of governance mechanisms among free cash flow agency problems (Bruch *et al.*, 2000; Bukit and Iskandar, 2009; Chung *et al.*, 2005; Gul and Tsui, 2001; Oswald and Young, 2008; Pawlina and Renneboog, 2005; Richardson, 2006; Wu, 2004). Chi and Scott-Lee (2010) empirically report that only in firms with high free cash flow, the influence of CEO duality and institutional and managerial ownership on firm value is significant. In emerging markets, Lee and Lee (2009) provide evidence that the firm valuation can be increased by forming strong board structure and this relationship is more prominent in firms with excess cash and entrenched managers. Moreover, Dittmar and Mahrt-Smith (2007) document that public pension found with high shareholding, by better monitoring the firms' use of cash, increase the valuation of firms with excess cash. Since, corporate governance is used to increase the valuation of firms with high free cash flow, researchers expect the benefit of governance mechanisms in enhancing the usefulness of reported earnings is more prominent when surplus free cash flow agency problem is more severe. The higher surplus free cash flow agency problem within a firm, the greater the probability the firm will employ strong elements of governance mechanisms to alleviate this problem and ensure reporting reliable earnings numbers. As consequence, the market will react positively to these elements and the relationship between governance mechanisms and the informativeness of earnings will be stronger, accordingly. The hypothesis is as follows:

Hypothesis 9: The influence of governance mechanisms selected in, this study on earnings informativeness is more pronounced for firms with high agency costs from surplus free cash flow, than for firms with low agency costs from surplus free cash flow.

RESEARCH DESIGN

Model specification and estimation: Financial information users utilize earnings information contained in financial reports to predict stock price and returns. The study uses return-earnings relation as a proxy for earnings informativeness. More particularly, researchers regress share returns on earnings per share to examine the extent to which the coefficient on earnings increases or decreases from the return-earnings relation. The positive (negative) and significant coefficient on earnings per share indicates earnings are more (less) informative. To test whether governance and ownership structure significantly influence the informativeness of earnings, researchers extend the return earnings relation by adding six governance (board independence, board size, chairman independence, audit committee independence, audit committee meetings, audit committee competence) and two ownership variables (institutional and managerial ownership) to the relation. Researchers interact each of these variables with earnings per share to empirically examine the incremental effect of the variables on the relationship between share returns and earnings per share (We use interaction variables in the model as the main impact of corporate governance variables on the independent variable is far from the aim and cannot be interpreted. However, the model is in line with a number of studies that directly include the corporate governance variables interacted with EPS (Korczak and Korczak, 2009; Chang and Sun, 2010)). The interaction of earnings per share with surplus free cash flow is also included into the model to examine the influence of surplus free cash flow agency problem on earnings informativeness.

Besides the interaction of earnings per share with governance practices (i.e., governance and ownership structure), researchers compute three-way interactions between earnings per share, governance practices and surplus free cash flow to test the combined effect of corporate governance and surplus free cash flow on earnings informativeness. The four control variables are included into the model: Size (SIZE), Leverage (DEBT), Loss (LOSS) and Risk (RISK). Moreover, researchers include year dummy and industry dummy variables into the model to capture the fixed year and industry effect. The pooled cross-sectional model is as follows:

$$\begin{aligned}RET = {} & \alpha + \beta_1 EPS + \beta_2 EPS \times BDIND + \beta_3 EPS \times BDSIZE + \\ & \beta_4 EPS \times CHIND + \beta_5 EPS \times ACIND + \beta_6 EPS \times \\ & ACMEETING + \beta_7 EPS \times ACQLFD + \beta_8 EPS \times \\ & IOWN + \beta_9 EPS \times MOWN + \beta_{10} EPS \times SFCF + \\ & \beta_{11} EPS \times SFCF \times BDIND + \beta_{12} EPS \times SFCF \times \\ & BDSIZE + \beta_{13} EPS \times SFCF \times CHIND + \beta_{14} EPS \times \\ & SFCF \times ACIND + \beta_{15} EPS \times SFCF \times ACMEETING + \\ & \beta_{16} EPS \times SFCF \times ACQLFD + \beta_{17} EPS \times SFCF \times \\ & IWON \times \beta_{18} EPS \times SFCF \times MOWN + \beta_{19} EPS \times \\ & SIZE \times \beta_{20} EPS \times DEBT + \beta_{21} EPS \times LOSS + \\ & \beta_{22} EPS \times RISK + \beta_{23} YR + \beta_{24} \sum IN + \varepsilon \end{aligned} \quad (1)$$

where RET is share returns cumulated over a period of 12 months starting from 9 months before fiscal year to 3 months after the fiscal year end, calculated as $(P_{it}-P_{it-1})/P_{it-1}$ (P_{it} is the last trading share price of firm i at time t and P_{it-1} is the last trading share price of firm i at time t-1); EPS is earnings before extraordinary items per share deflated by the share price at the beginning of the period; SFCF is a binary variable with value of 1 if Free Cash Flow (FCF, Eq. 2) is previous the sample median for the year and growth ratio (market to book value of equity ratio, MBR) is below the sample median for the year, 0 otherwise; BDIND is the proportion of independent directors to total number of directors on the board; BDSIZE is total number of directors on the board; CHIND is a binary variable with value of 1 if the board chairman is an independent director, 0 otherwise; ACIND is the proportion of independent members to total number of members on an audit committee; ACMEETING is the number of audit committee meetings held annually; ACQLFD the proportion of audit committee members with a membership in an accounting association or body to the total number of members serving on the audit committee; IOWN the proportion of shares held by five main institutional investors in Malaysia; MOWN the proportion of the executive directors' direct ownership of shares to total number of shares issued; SIZE is the natural log total assets; DEBT is long term debt to total assets; LOSS is a binary variable with value of 1 for loss firms and 0 for other firms; RISK is the standard deviation of the monthly returns on the share; YR is a binary variable with value of 1 for year 2008 and 0 for year 2009; IN is a binary variable with value of 1(0 otherwise) if a firm belongs to industrial products, trading or consumer product sector (The study includes only the three industry sectors in regression analysis to avoid the dummy variable trap); $^{\times}$denotes the interactions between the variables and ε is the error term.

Following the regulatory requirements in Malaysia, researchers define independent non-executive directors as directors who are not officers of a firm, independent from the management and controlling shareholders and not representative of concentrated or family holding of its shares (Bursa Malaysia Listing Requirement 2001). As mentioned in the literature review, the study uses the independency of board chairman as a broader measurement of board leadership. This is due to the sample firms exhibiting very high compliance with the Malaysian finance committee recommendation that the two positions of Chairman and CEO (so called CEO duality) should be separated. The study includes only the five main institutional investors to test the institutional ownership effect because their ownership of equity forms about 70% of total institutional shareholding of public firms listed on Main Board of Bursa Malaysia (Wahab *et al*., 2007).

Researchers measure SFCF agency problem by using operational definitions of Free Cash Flow (FCF) and growth prospects (MBR) of a firm. Firms with high free cash flow but low growth opportunities are viewed as firms with surplus free cash flow agency problem (Bukit and Iskandar, 2009; Chung *et al*., 2005; Rahman and Mohd-Saleh, 2008). Following the literature, FCF for each firm is calculated as:

$$FCF_{it} = \frac{(INC_{it} - TAX_{it} - INTEXP_{it} - OSDIV_{it} - PSDIV_{it})}{TA_{it-1}} \quad (2)$$

Where:

FCF_{it} = The free cash flow of firm i at year t
INC_{it} = The operating income before depreciation of firm i at year t
TAX_{it} = The income taxes of firm i at year t
$INTEXP_{it}$ = The gross interest expense on short and long term debt of firm i at year t
$OSDIV_{it}$ = Total amount of ordinary dividends of firm i at year t
$PSDIV_{it}$ = The preferred dividends of firm i at year t
TA_{it-1} = Total book value of assets for the firm i at year t-1

Growth prospects are represented by the Market-to-Book Ratio (MBR). This ratio expresses the differences between firms' market and book value of equity. The higher the difference, the greater the growth opportunities of the firms are (Jaggi and Gul, 1999). Firms with above sample median FCF and below sample median MBR represent those with potential surplus free cash flow agency problem.

Apart from the earnings per share governance mechanisms interaction, the study expects that the estimated coefficients on the three-way interaction variables to be significantly associated with share returns in the predicted direction. The predicted and significant relationship indicates that relative to other firms, earnings numbers are more informative for firms with good governance mechanisms when the agency conflict of surplus free cash flow exists within the firms. We use the Variance Inflation Factor (VIF) and the Pearson correlation matrix test to assess multicollinearity problem. Both tests indicate that multicollinearity problem is not a major concern of this study. Moreover, the White test rejects the null hypothesis that the variance of the error terms is homogeneous and free of heteroskedasticity problem (Chi-square = 337.251, p-value = 0.019). Therefore to address this problem, heteroskedasticity-corrected least square is estimated using gretl software (To see how heteroskedasticity-corrected least square is performed, please find out a study of Aktas and Oncu titled "The Stock Market Reaction to Extreme Events: The Evidence from Turkey").

Sample selection and descriptive statistics: The sample selection criteria is summarized and presented in Table 1. Table 2 shows the distribution of sample firms according to industrial classification. The sample is drawn from all firms listed on the main market of Bursa Malaysia. As researchers aim to test the hypothetical relationships after the amended listing requirements came into force in 2008, the 2 years period of 2008 and 2009 are covered. Financial and stock returns data are obtained from Data Stream database whereas corporate governance data are

Table 1: Sample selection criteria

Criteria	No. of firm years
Companies listed on the main market of Bursa Malaysia at December 31, 2010	1854
Less	-
Financial companies	392
Companies with other than December 31 fiscal year end	702
Companies with insufficient financial data	50
Companies with insufficient corporate governance data	50
Final sample	660

Table 2: Sector representation of the sample firms

Industries	No. of companies	Percentage
Consumer product	120	18
Industrial products	254	38
Construction	32	5
Trading/services	154	24
Properties	12	2
Plantation	40	6
Technology	20	3
Hotels	19	3
Mining	9	1
Total	660	100

Bursa Malaysia website (www.Bursamalaysia.com)

extracted from listed firms' respective annual reports. Following the existing literature, financial companies are excluded as their managers are expected to have less discretion over the use of free cash flow, as well as methods to cover the bad performance of earnings. To increase the homogeneity of the sample companies whose financial year ends on dates other than December, 31 are also eliminated. Moreover, researchers omit companies with incomplete financial and corporate governance data for the sample period. Researchers transform variables with extreme values using normal scores and logarithms to reduce the possible influence of outliers on the estimate of coefficients.

The descriptive statistics for the continuous and dummy variables are reported in Table 3. The mean values of share returns (RET) and Earnings Per Share (EPS) are 20.7 and 2.5%, respectively. The average proportion of independent non-executive directors is 44%. As for Board Size (BDSIZE), the mean number of directors on boards is approximately 8.

Moreover, the mean value of Audit Committee Independence (ACIND) is 84.9%. The number of audit committee meetings held by the sampled firms is approximately 5. As for Audit Committee Competence (ACQLFD), the percentage ranges from 0-1 with an average value of 34.24%. The five institutional investors, on average, hold 4.5% of total share outstanding of the sample firms.

On the other hand, executive directors have an average direct shareholding of 8.5% of total outstanding shares. The maximum (minimum) firm size are 43,407 (22.9) with an average of 1,220.8. As for debt to assets ratio,

Table 3: Descriptive statistics for continuous and dummy variables

Variables	N	Min.	Max.	Mean	SD	Skewness	Kurtosis
RET	660	-1.466	4.015	0.207	0.644	1.452	4.419
EPS	660	-6.578	2.627	0.025	0.502	-6.912	82.286
BDIND	660	0.167	0.857	0.439	0.108	0.727	0.526
BDSIZE	660	4	17.00	7.55	1.842	1.011	2.642
ACIND	660	0.333	1.000	0.849	0.163	-0.271	-1.622
ACMEET ING	660	1[5]	12.000	4.94	1.102	1.890	6.412
ACQLFD	660	0.000	1.000	0.342	0.176	0.862	2.818
IOWN	660	0.000	0.745	0.045	0.083	3.660	20.606
MOWN	660	0.000	0.969	0.085	0.139	2.160	5.113
SIZE (in million RM)	660	22.9	43,407.0	1,220.8	3,515.9	7.563	69.573
DEBT	660	0.000	0.710	0.098	0.124	1.858	3.749
RISK	660	0.000	25.357	0.215	0.121	21.442	498.088
				N (mean)			
	-	-	-	0	1.000	-	-
CHIND	-	-	-	437 (66.21)	223 (33.79)	-	-
SFCF	-	-	-	492 (74.55)	168 (25.45)	-	-
LOSS	-	-	-	509 (77.12)	151 (22.88)	-	-

RET = Share returns for 12 months starting from 9 months before fiscal year to 3 months after the fiscal year end, calculated as $(P_{it}-P_{it-1})/P_{it-1}$ (P_{it} is the last traded share price of firm i at time t and P_{it-1} is the last trading share price of firm i at time t-1); EPS = Earnings before extraordinary items per share deflated by the share price at the beginning of the period; BDIND = Proportion independent non-executives directors on the board; BDSIZE = Total number of directors on the board; CHIND = Dummy variable (1 if the board is headed by independent chairman, 0 otherwise); ACIND = Proportion independent members on an audit committee; ACMEETING: Number of Audit Committee Meetings; ACQLFD = Proportion of competent members on audit committee; IOWN = The proportion of shares held by five main institutional investors; MOWN = Proportion executive directors ownership; SFCF = Dummy variable (1 for high SFCF firms, 0 otherwise); SIZE = Total assets; DEBT = debt to total assets ratio; LOSS = Dummy variable (1 for loss firms, 0 otherwise); RISK = The standard deviation of the monthly returns on the share

Table 4: Pearson correlation matrix

Explanatory variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RET	1														
EPS	0.33**	1													
BDIND	-0.01	-0.08*	1												
BDSIZE	0.03	0.15**	-0.28**	1											
CHIND	-0.02	-0.02	0.23**	-0.02	1										
ACIND	0.11**	0.02	0.27**	0.16**	0.07	1									
ACMEETING	-0.06	-0.12**	0.15**	0.02	-0.01	0.09*	1								
ACQLFD	-0.01	0.02	-0.03	-0.08*	-0.07	0.02	-0.01	1							
IOWN	-0.01	0.06	-0.06	0.23**	-0.02	-0.05	-0.04	-0.09*	1						
MOWN	0.02	0.01	-0.09*	0.01	-0.06	0.09*	-0.06	0.05	0.12**	1					
SIZE	-0.05	0.16**	-0.06	0.36**	-0.02	0.02	0.16**	-0.06	0.43**	0.34**	1				
BDET	-0.07*	-0.11**	0.03	0.04	0.02	-0.01	0.17**	-0.05	0.07	-0.04	0.29**	1			
LOSS	-0.10*	-0.71**	0.08*	-0.22**	0.03	0.02	0.11**	-0.03	-0.16**	0.07	-0.25**	0.10*	1		
SFCF	0.009	0.31**	-0.09*	0.05	-0.08*	-0.02	-0.06	-0.02	-0.07*	0.07	-0.09*	-0.04	-0.24**	1	
RISK	0.077*	0.257**	-0.129**	0.324**	0.017	0.006	-0.007	-0.037	0.351**	-0.180**	0.554**	-0.085*	-0.355**	-0.124**	1

*Correlation is significant at 0.05 level; **Correlation is significant at the 0.01 level

the mean value is 9.8% with values ranging from 0-71%. Risk has an average of 21.5% with maximum (minimum) of 25.357 (0.000).

In terms of dummy variables, 34% (223) of sample firms have an independent chairman. On average, 25% (168) of the sample firms are classified as having potential free cash flow agency problem. Even though this average is lower than that reported by Bukit and Iskandar (2009) (43%), it is higher than that found in Chung *et al*. (2005) (19%). This implies that Malaysian firms have serious cash flow agency problem albeit there are proactive actions to improve and strengthen the corporate governance system in Malaysia. Finally on average, approximately 23% of the firms have poor performance, as shown by the mean value of loss in Table 3. Table 4 shows the correlation among ariables under investigation.

EMPIRICAL RESULTS

Univariate tests: Table 5 presents mean (median) differences for variables examined in this study, based on SFCF levels (high and low SFCF). The univariate comparisons suggest that high SFCF firms experience more earnings per share than low SFCF firms, evident by higher mean and median EPS. The difference in mean and median EPS between high and low SFCF firms is significant at the 0.01 level.

Contrary to the expectation, the mean and median BDIND, CHIND and IOWN of firms with high SFCF are lower than those of low SFCF (all significant at the 0.05 level or better for means and marginally significant for medians). These results indicate that firms with high SFCF have less independent directors, less independent chairmen and less shareholding by activist institutions. However, the results are in tandem with an argument that controlling shareholders strive to keep their control over firm resources and not to optimally adjust governance mechanisms of the firm in response to surplus free cash flow agency problem (Chi and Scott-Lee, 2010; Richardson, 2006).

As seen in Table 5, low SFCF firms are more likely to have debt in their capital structure than high SFCF firms (only t-value is significant at the 0.01 level). Moreover, firms with high SFCF are larger in size than those with low SFCF (both mean and median are significant at the 0.10 level of confidence or better). These results are not consistent with the notion that firms with high SFCF tend to be bigger in size and to use more debt as external financing to reduce agency costs of surplus free cash flow. Compared to high SFCF firms, the mean and median loss of low SFCF firms is significantly higher, indicating that firms with low SFCF is more likely to report losses than firms with high SFCF (all tests are significant at the 0.01 level or better). In sum the results, though unexpected, indicate that high and low SFCF firms have different characteristics and thus, underscore the importance of taking into consideration these factors in the multivariate analyses.

Hypotheses testing: Table 6 shows the results of the influence of corporate governance mechanisms control variables, surplus free cash flow and the combined effect of corporate governance and surplus free cash flow on the informativeness of earnings. As shown in the model, the stand-alone coefficient on EPS is positive and significant at $p<0.001$, indicating that Malaysian investors view earnings numbers of firms as informative. The coefficient of 0.422 implies that a 1% change in reported earnings results in a 0.422 change in share price.

Table 5: Univariate differences in the RET, EPS, governance mechanisms and control variables across low and high SFCF group

	Low SFCF		High SFCF				
Variables	Mean	Median	Mean	Median	t-value	z-value	χ^2-value
RET	0.21	0.11	0.19	0.12	0.50	0.08	-
EPS	-0.02	0.06	0.15	0.14	-3.70***	-8.47***	-
BDIND	0.44	0.43	0.42	0.43	2.25***	1.77*	-
BDSIZE	7.51	7.00	7.69	7.00	-1.11	-1.27	-
CHIND	0.36	0.00	0.27	0.00	2.23***	2.22**	4.53**
ACIND	0.85	1.00	0.84	1.00	0.56	0.46	-
ACMEETING	4.99	5.00	4.79	5.00	1.98**	1.58	-
ACQLFD	0.34	0.33	0.34	0.33	0.53	0.39	-
IOWN	0.05	0.00	0.03	0.00	1.99**	1.84*	-
MOWN	0.08	0.11	0.09	0.02	-0.49	-2.05**	-
SIZE (RM million)	1,357.60	423.20	820.40	302.90	1.72*	2.26**	-
DEBT	0.10	0.05	0.08	0.04	2.22***	1.05	-
LOSS	0.29	0.00	0.06	0.00	6.22***	6.05***	35.32***
RISK	0.17	0.12	0.35	0.12	-1.97**	-0.64	-

*, **, ***Significant at 0.10, 0.05 and 0.01 level, respectively; mean differences are based on t-test for continues variables and Chi-square test for binary variables; Median differences are based on Mann-Whitney test

Table 6: Regressions results for the influence of governance mechanisms; along with their interaction with surplus free cash flow on earnings informativeness RET = $\alpha+\beta_1$EPS+β_2EPS×BDIND+β_3EPS×BDSIZE+β_4EPS×CHIND+β_5EPS×ACIND+β_6EPS×ACMEETING+β_7EPS×ACQLFD+β_8EPS×IOWN+β_9PS×MOWN+β_{10}EPS×SFCF+β_{11}EPS×SFCF×BDIND+β_{12}EPS×SFCF×BDSIZE+β_{13}EPS×SFCF×CHIND+β_{14}EPS×SFCF×ACIND+β_{15}EPS×SFCF×ACMEETING+β_{16}EPS×SFCF×ACQLFD+β_{17}EPS×SFCF×IOWN+β_{18}EPS×SFCF×MOWN+β_{19}EPS×SIZE+β_{20}EPS×DEBT+β_{21}EPS×LOSS+β_{22}EPS×RISK+β_{23}YR+$\beta_{24}\Sigma$IN+ε

			Dependent variable: Share returns (RET)	
Explanatory variables	Expected sign	Coefficient	t-stat	VIF
Const	?	0.340	5.288***	-
EPS	+	0.422	7.796***	4.482
EPS×BDIND	+	0.087	2.914***	1.997
EPS×BDSIZE	-	0.042	1.038	1.978
EPS×CHIND	+	0.074	1.169	2.320
EPS×ACIND	+	-0.065	-1.889*	1.741
EPS×ACMEETING	+	-0.028	-1.034	1.366
EPS×ACQLFD	+	0.063	1.709*	1.406
EPS×IOWN	+	0.047	1.030	1.595
EPS×MOWN	+	0.040	1.167	1.554
EPS×SFCF	-	-0.145	-1.851*	2.393
EPS×SFCF×BDIND	+	-0.104	-1.413	1.869
EPS×SFCF×BDSIZE	-	-0.145	-1.969**	1.672
EPS×SFCF×CHIND	+	-0.010	-0.083	2.213
EPS×SFCF×ACIND	+	0.039	0.524	1.918
EPS×SFCF×ACMEETING	+	-0.022	-0.381	1.610
EPS×SFCF×ACQLFD	+	-0.136	-2.213**	1.616
EPS×SFCF×IOWN	+	-0.087	-1.240	1.672
EPS×SFCF×MOWN	+	-0.156	-2.717***	1.488
EPS×SIZE	-	-0.038	-0.938	2.086
EPS×DEBT	-	0.042	1.298	1.274
EPS×LOSS	-	-0.360	-4.147***	3.293
EPS×RISK	-	0.060	1.448	2.190
YR	?	Controlled	Controlled	
IN	?	Controlled	Controlled	
Adjusted R^2			0.607	
F-statistic			40.287***	

RET: Share returns for 12 months starting form 9 months before fiscal year to 3 months after the fiscal year end, calculated as $(P_{it}-P_{it-1})/P_{it-1}$ (P_{it} is the last trading share price of firm i at time t and P_{it-1} is the last trading share price of firm i at time t-1); EPS = Earnings before extraordinary items per share deflated by the share price at the beginning of the period; BDIND = Proportion independent non-executives directors on the board; BDSIZE = Total number of directors on the board; CHIND = Chairman independence; ACIND = Proportion of independent members on audit committee; ACMEETING = Number of audit committee meetings; ACQLFD = Proportion of competent members on audit committee; IOWN = The proportion of shares held by five main institutional investors in Malaysia; SIZE = Total assets; DEBT = Debt to total assets ratio; LOSS = Loss firm; RISK = Firm risk; YR: year fixed effects; IN = Industry fixed effects; *, **, ***indicate significant at 0.10, 0.05 and 0.01 level respectively; Z scores of variables SIZE, BDIND and ACIND are used to mitigate multicollinearity problem

However of the eight governance mechanisms, only three variables have a significant effect on return earnings relation. The test variables, EPS×BDIND and EPS×ACQLFD are positively and significantly associated with share returns ($\beta = 0.087$, $p = 0.001$, $\beta = 0.063$, $p<0.10$). These results imply that boards with a relatively high proportion of independent directors and competent audit committees are more likely to have a higher level of information content of earnings. On the contrary, the negative coefficient on EPS×ACIND indicates that earnings of firms with a relatively high proportion of independent audit committees are less informative. This means that ERC decreases by approximately -0.065 for each percentage point increase in the independency of audit committee. The negative result is justified by the fact that Malaysian firms tend to comply with independency requirements only with the intention to avoid any punishment by the regulators which favor independent directors (Abdullah *et al*., 2010; Shamsher and Zalkarnin, 2003). EPS×SFCF itself is negatively and significantly related to share returns. This indicates that firms with high surplus free cash flow report less informative earnings. Amongst the control variables, only EPS×LOSS is significantly related to share returns in the expected direction. This result is in tandem with the expectation that managers of loss firms have incentives to opportunistically manage earnings so as to avoid exhibiting negative earnings.

Moreover, it can be observed that EPS×SFCF×BDSIZE is negative and significantly at 5% of confidence. This result confirms the expectation that small boards have better monitoring of financial reporting process when agency cost of free cash flow is high. Independent directors in small boards are more likely to persuade top

managers of firms with high surplus free cash flow to disgorge the cash, instead of wasting it in value-destroying activities and report informative earnings numbers. On the other hand, the unexpected direction on EPS×SFCF×ACQLFD implies that even though the presence of competent members on the audit committee could lead to marginally informative earnings numbers, the audit committee competence earnings informativeness relationship becomes weaker when surplus free cash flow is high.

In Malaysia, having competent an audit committee would not result in informative earnings because the involvement of controlling shareholders in the selection of audit committee members. Such audit committee members are not expected to provide comments and critics on the controlling shareholders' actions towards firm resources and manipulating financial reports without fear and favor as they are roughly nominated by them. As such, investors will not place greater value on an audit committee with competent members when free cash flow agency problem exists.

The estimated coefficient on EPS×SFCF×MOWN is significantly but negatively, related to share returns. This means that firms with high surplus free cash flows and high shareholdings by managers are more likely to report less informative earnings. The negative coefficients can be justified by the fact that entrenchment hypothesis is applicable in the Malaysian environment where firms are commonly held by family members who are the managers (Cheung and Chan, 2004; La Porta *et al*.,1998). This finding is consistent with the argument that holding more shares by top managers entrench them to seek private interests specially when there is excess cash (Lee and Lee, 2009).

In sum, Malaysian firms have implemented corporate governance guidelines and practice codes that mirror those adopted by firms in Western countries. It appears that these practice and codes have not the expected benefits for mitigating the agency conflict of free cash flow and accordingly enhancing the informativeness of earnings in the Malaysian environment that is characterized by its unique legal, regulatory, economic, social and cultural factors. However, the current findings while disappointing, highlights the importance of surplus free cash flow in making investment decisions. Instead of focusing solely on corporate governance mechanisms, investors should incorporate surplus free cash flow when they use earnings numbers to evaluate share returns. The presence of surplus free cash flow makes reporting low quality earnings problem more serious in firms with weak governance system.

ROBUSTNESS ANALYSIS

Tow additional tests are conducted to ensure the robustness and sensitivity of the main results reported in the previous section. The first additional test examines the corporate governance-earnings informativeness relation in different SFCF groups: High and low surplus free cash flows. In the main analysis, the study focuses on the three-way interaction terms to test if the hypothetical association between corporate governance and earnings informativeness depends on surplus free cash flow agency problem. Even though, this type of model specification may increase the sample size and enhance the test power, it does not determine whether the control variables have different estimated coefficients in the two SFCF groups. Hence, researchers partition our sample into halves based on surplus free cash flow to make the control variables vary across the two groups of SFCF and to verify the findings discussed previously. Then, researchers re-estimate Eq. 1 of the main analysis by running the regression on the SFCF groups.

The partitioned model's results indicate that even though EPS×CHIND has no significant effect on share returns of low SFCF group, the former is positively and significantly related to share returns in high SFCF group ($\beta = 0.208$ for high SFCF group vs. $\beta = 0.051$ for low SFCF group). The result implies that compared to firms with low SFCF firms, high SFCF firms with independent chairman are more likely to report informative earnings numbers. It is also indicates that the market values more reported earnings by firms with independent chairman when agency conflict of free cash flow is high, though it does not react to earnings information of firms with independent chairperson and low free flow agency problem. This novel finding is in conformity with the expectation of the ability of independent chairmen to enhance the usefulness of earnings when surplus free cash flow agency problem exists. Consistent with the findings in the main analysis but contrary to the expectation, EPS×MOWN is negatively and significantly associated with share returns for high SFCF group. The interaction of earnings per share with audit committee meetings has significant influence on share returns but with negative direction. These findings demonstrate that entrenched managers in firms with high SFCF tend to have control on firm's resources and disclose less informative earnings. They also imply that firms with active audit committee and high surplus free cash flow experience low information content of earnings numbers.

Further, it appears that independent directors on the boards and qualified members on the audit committees

Table 7: The association between governance practices and earnings informativeness in different SFCF groups

Explanatory variables	Combined (n = 660)	Low SFCF (n = 492)	High SFCF (n = 168)
(Constant)	0.329 (5.202)***	0.258 (3.532)***	0.368 (2.360)**
EPS	0.398 (8.189)***	0.432 (7.424)***	0.309 (3.343)***
EPS×SIZE	-0.055 (-1.304)	-0.076 (-1.539)	-0.006 (-0.072)
EPS×DEBT	0.047 (1.525)	0.066 (1.664)*	-0.087 (-1.279)
EPS×LOSS	-0.329 (-4.199)***	-0.312 (-3.237)***	-0.454 (-1.899)*
EPS×RISK	0.069 (1.799)*	0.114 (2.412)**	-0.055 (-0.613)
EPS×BDIND	0.095 (3.431)***	0.093 (2.788)***	-0.088 (-1.230)
EPS×BDSIZE	0.037 (1.041)	0.031 (0.731)	-0.097 (-1.515)
EPS×CHIND	0.050 (0.931)	0.051 (0.763)	0.208 (1.906)*
EPS×ACIND	-0.055 (-1.894)*	-0.070 (-2.018)**	-0.025 (-0.411)
EPS× ACMEETING	-0.019 (-0.688)	-0.017 (-0.461)	-0.138 (-2.352)**
EPS×ACQLFD	0.025 (0.778)	0.064 (1.764)*	-0.085 (-1.551)
EPS×IOWN	0.045 (1.163)	0.051 (1.077)	0.009 (0.144)
EPS×MOWN	0.004 (0.177)	0.037 (1.078)	-0.165 (-3.682)***
Adjusted R^2	0.513	0.517	0.586
F-statistic	41.976***	31.958***	14.931***

*, **, ***indicate significant at 0.10, 0.05 and 0.01level, respectively; year and industry dummies are included in regressions but not reported

oversee the financial reporting process and prevent reporting less reliable earnings figures by low SFCF firms but not by high SFCF firms. Although, these findings are in contradiction to the expectation, they confirm the direct and positive contribution of the two variables found in the main analysis. However, the adjusted R^2 for firms with high SFCF is higher than for firms with low SFCF, supporting the role of surplus free cash flow in corporate governance-earnings informativeness relation (51.7% for low SFCF group vs. 58.6% for high SFCF group) Table 7.

The second robustness test examines whether the main results are sensitive to the inclusion of additional control variables such as audit quality. A dummy variable is coded one if a company is audited by one of big 4 audit firm and 0 otherwise. Researchers rerun the regressions by adding this variable into the model. However for the sake of brevity, researchers do not report the results of this analysis. The findings from the new regression do not entirely alter the earlier main results as the direction and significance of the variables remain unchanged (The remaining tables showing results are available from researcher upon request). The dummy variable (audit quality) has no significant impact on share returns. This is in line with the argument that audit quality is not suitable and has no significant role in Malaysian context (Ali *et al*., 2006; Haniffa and Hudaib, 2006).

CONCLUSION

Empirical evidence in the US (Chi and Scott-Lee, 2010) reveals that not taking into consideration the agency conflict of free cash flow would lead to erroneous conclusion that corporate governance is not significantly associated with firms' value. The study extends the literature by examining the effect of governance and ownership structure on the informativeness of earnings numbers in the existence of surplus free cash flow agency problem context. Using financial and corporate governance data for a sample of Malaysian firms, researchers find (amongst governance variables tested in the study) that only board independence and audit committee competence are positively and significantly associated with earnings informativeness. Unlike studies conducted previously (Chi and Scott-Lee, 2010; Chung *et al*., 2005; Lasfer, 2002), the study concludes the market perceives firms with frequent meetings of audit committee, competent audit committee, high shareholdings high shareholding by executives to report less informative earnings when there is surplus free cash flow agency problem. However, consistent with the expectation, earnings numbers of firms with independent chairman and small boards are considered as more useful if agency costs of surplus free cash flow are high.

Overall, the study provides support for the premise the market would value earnings information reported by firms with independent directors and competent audit committee members. It also lends further support to the assertion that chairman independency and board size alone would not results in informative earnings numbers and thus, surplus free cash flow agency problem should be considered in these relationships. Nevertheless, the findings of this study fail to document a positive contribution of other governance practices to earnings informativeness when surplus free cash flow agency problem exists within firms. Given that the corporate finance environment of Malaysia differs widely from that of Western countries, the study suggests Malaysian regulatory bodies to design corporate governance codes that can help regaining investors' confidence towards accounting and financial information. It also, suggests that future policy initiatives should strengthen law to punish firms with controlling shareholders who expropriate minority shareholders' wealth, rather than implementing internal mechanisms that can be manipulated by the controlling shareholders.

LIMITATIONS

The findings of this study may be subjected to some limitations. First due to non-availability of data, this study only covers a 2 years period of 2008 and 2009. As the market may need more time to digest these new events, using such data which is generated 2 years after the new requirements may not fully reflect the real effect of the

requirements. This could be the reason of the unexpected contribution of audit committee competence and independence. Second, heteroskedasticity-corrected least squares regression was applied in this study to solve heteroskadasity problem. Other appropriate methods can be used to test the associations between corporate governance practices, surplus free cash flow and earnings informativeness. Third, the results of this study may not be applicable to other settings with high investor protection, less family ownership and less concentrated and no pyramidal ownership. As the conflict of interest in developing countries is different from that of developed countries, governance mechanisms are expected to play different roles in these settings.

Researchers expect future research to use a number of years after the new requirements as to examine the hypothesized relationships. It would also be valuable to investigate the role of other governance mechanisms such as independent directors' commitment, directors' share option schemes, the presence of women in the board and management and matters related to compensation and nominating committees in reducing agency costs of free cash flow and improving the financial reporting quality. Future studies can investigate the influence of surplus free cash flow on corporate governance-earnings quality relation in other emerging markets and transition economies. Finally, the study expects future research to use other methods such as 2 Stage Least Squares (2SLS) to address the endogeneity issue associated with corporate governance-earnings quality relationship.

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