ACCRUAL QUALITY: THE PRESENCE OF WOMEN DIRECTORS ON AUDIT COMMITTEE BOARDS

Zalailah Salleh, Hafiza Aishah Hashim*, Nor Raihan Mohamad

Abstract

This article examines whether the participation of women on audit committee boards enhances audit committee effectiveness to control earnings management practices. While numerous studies have investigated the effects of women audit committee on earnings management, empirical evidence is rather inconsistent. Therefore, it is imperative to investigate the impact of female representation on audit committee effectiveness. In order to address the objective of the study, we use cross-sectional version of the performance-adjusted current discretionary accruals model to detect earnings management (Kothari, Leone and Wasley, 2005). Using a sample of 356 companies for the year ended 2007; we found a significant negative relationship between the presence of women directors on audit committee boards and earning managements. The results suggest that the presence of women directors on audit committee boards reduces earning management practices.

Keywords: Audit Committee, Accrual Quality, Gender Diversity, Earnings Management, Malaysia

** Faculty of Management and Economics, Universiti Malaysia Terengganu (UMT), 21030 Kuala Terengganu, Terengganu, Malaysia.*
Tel.: 609-6683427,
Fax: 609-6684237
E-mail: hafizaaishah@umt.edu.my

1. Introduction

Research concerning the audit committee characteristics and earnings management has increased dramatically in recent years. Previous research has investigated the association between audit committee characteristics and earnings management. However, despite the increased attention, there is a limited knowledge on the impact of increased women representation on audit committee effectiveness. Women representation on the audit committee boards is one of the sources of diversity in corporate boards. Businesses led by diverse boards that reflect the whole breadth of their stakeholders and their business environment are perceived to be more successful businesses. By having comprehensive board diversity, the board is perceived to be more capable of understanding risks and more capable to come up with robust solutions to address business problem.

A comprehensive diversity in corporate boards is fundamental for healthy businesses because it is imperative to have diversity of thought, experience, knowledge, understanding and perspective. Therefore, it is imperative to investigate the impact of female representation on audit committee effectiveness.

An audit committee plays significant roles in financial reporting as to ensure compliance with the regulatory requirements and auditing standards. Audit committee characteristics are suggested to be factors that influence their effectiveness (Song and Windram, 2004). Previous research have investigated an association between audit committee characteristics and earning managements (Klein, 2002, Bedard et al., 2004, Gul et al 2007 and Sun et al 2011). Gul et al (2007) and Sun et al (2011) specifically investigate the women representation on audit committee board; however both studies provide mixed results. Therefore previous research provides inconclusive results on the influence of gender diversity on the board on earning management. Thus it warrants further research to investigate whether women representation on audit committee board affects earnings management. In addition, previous research was conducted in the U.S listed firms.

In this paper, we attempt to address this gap in the research literature. In particular, we examine the association between earnings management and the gender of the board of audit committee. Previous literature suggests that women directors are more conservative, risk averse, high moral standards and more trustworthy than men, and are thereby less likely to manipulate corporate financial and other disclosures. Therefore, we hypothesize the increase in women representation on the board of audit committee; the committee becomes more effective in constraining the extent of earnings management. In particular, we expect a stronger negative relationship between the level of earnings management and women board directors. This stronger negative relationship translates into a more limited ability for the board to manage earnings.

The study is based on a sample of 356 Malaysian companies for the year ended 2007. Results of a regression analysis confirm that there is a significant negative relationship between the presence of women directors on audit committee boards and earning managements. The results suggest that the presence of women directors on audit committee boards reduces earning management practices.

The reminder of this paper is structured as follows. Section 2 presents a review of the relevant literature and outlines hypotheses development, followed by the research design in Section 3. Section 4 examines the main hypotheses and presents the findings. Finally Section 5, some conclusions are drawn and the implications and limitations of the study are discussed.

2. Literature Review

2.1 Audit Committee and Earnings Management

Audit committees are formed to provide critical oversight of companies' financial reporting process. Particularly, the primary purpose of their formation is to enhance the credibility of audited financial statements. The committees are expected to act independently to resolve conflicts between the management and external auditors (Klien, 2002). In particular, the audit committees can act as an arbiter between management and the auditors by providing a formal communication channel between the board, management and the external auditor (Cohen et al, 2007, Turley and Zaman, 2004). In addition, audit committees are perceived to play a key role in constraining earnings management and enhancing earning quality (Klien, 2002; Bedard et al, 2004). Earnings management has been defined as an intentional alteration in the financial information to obtain private gain (Schipper, 1989). Earnings management practices are perceived to be unethical conducts because they involve a selection of accounting treatments resulting in biased reported earnings. It has been long acknowledged that managers may have incentives to manipulate accounting earnings by employing aggressive earnings management. Accounting earnings are considered the most widely used measure of company performance. Therefore, the practices mislead financial statement users about the underlying economic performance of the company. Moreover, it is widely recognized that the quality of financial reporting may depend on managerial motives and characteristics. Thus, the opportunism of the firm's managers tends to reduce earnings quality. Earnings management therefore, is of great concern to corporate stakeholders.

Previous research to a certain extent has documented that audit committee characteristics influence audit committee effectiveness in providing critical oversight of companies' financial reporting process and serving as an important governance mechanism. Audit committee independence, audit committee expertise and audit committee diligence are those characteristics of concern to researchers and regulators. Zhang et al (2007) investigate the relation between audit committee characteristics and the disclosure of internal control weaknesses. In particular, an entity's internal control is one of governance mechanisms and it is under the purview of its audit committee. Audit committee expertise was suggested to continue to be an important determinant of internal control weaknesses. Pomeroy and Thornton (2008) delineate measures being used in investigating audit committee financial reporting oversight roles. Aggressive earnings management was used to proxy a low level of financial reporting quality. Previous studies examine the relationship between earnings management and the characteristics of audit committees (Klein, 2002, Xie et al., 2003, Bedard et al., 2004). In particular, they examine whether audit committee characteristics affects the ability of the committees in constraining earnings management and thus their effectiveness in overseeing the financial reporting process. Klein (2002) examines whether the magnitude of abnormal accruals (the proxy for earnings management) is related to audit committee independence. The study uses a sample of 692 publicly traded U.S. firm-years, and finds that a higher proportion of outside directors on an audit committee is associated with lower earnings management. Bedard et al (2004) focuses on a different characteristic namely audit committee members' expertise. The findings suggest that audit committee members' expertise affects earnings quality. Xie et al (2003) argue that earnings management is less likely to occur in companies whose audit committees are active and whose members have corporate or investment banking backgrounds. Further, a recent study by Marra et al. (2009) addresses the question of whether the board of directors is more effective in constraining earnings management after the mandatory application of IFRS. Specifically, they explore how board independence and the existence of an audit committee impact earnings management. The findings further confirm that a company's corporate governance characteristics remain an important determinant of earnings quality.

In sum, previous results consistently indicate that earnings management is negatively related to audit committee independence, audit committee diligence and audit committee expertise. Therefore, a proper structured audit committee is expected to reduce earnings management because they provide effective monitoring of management in the financial reporting process. While these studies document audit committee characteristics are negatively related to earnings management, but they do not investigate another source of diversity on the audit committee board namely gender.

2.2 Gender Diversity

Quantitative studies using publicly available data were conducted to examine the relation between women representative on audit committee board and earnings management, however provide mixed results. A study by Sun et al (2011) examines the impact of female directorship on the effectiveness of audit committees in constraining earnings management. They employed a sample of 525 firm-year observations over the period 2003 to 2005. They found that the proportion of females on the audit committee is not associated with earnings management. However, an earlier study by Gul et al. (2007) that used a sample of 1,508 firm-year observations for years 2001 and 2002, find that earnings management is lower if at least one female director sits on the audit committee. In addition, survey studies were conducted to address the relationship between earnings management and gender. However, both studies by Clikeman et al. (2001) and Al-Hayale and Lan (2004) find no significant differences in the men's and women's attitudes about earnings management. Previous studies provide inconsistent evidence whether gender diversity is related to earnings management, therefore, warranted further research on this issue.

A considerable corporate finance and management literature suggests that gender diversity to a certain extent has an implication on firm's financial performance. With the premise that gender diversity may lead to a wider knowledge base, which in turns may create a competitive advantage compared to companies with non-diversified boards; previous studies examine the effects of female executives and directors on the firm's financial performance, market value and accounting information. For example, Peni and Vahamaa (2010) investigate the effects of female executive on the quality of accounting information. The findings suggest that firms with female CFOs are associated with income-decreasing discretionary accruals, thereby implying that female CFOs are following more conservative financial reporting strategies. Thus, female representation may enhance the functioning and efficiency of corporate boards and committees and, more generally, that executive gender may affect managerial behavior. Female executives are argued to improve decision making by bringing different perspectives and opinion into discussion (Fondas and Sassalos, 2000). In addition, females are argued to be more conservative, risk averse, high moral standards and more trustworthy than men. Women are expected to be more risk averse, which impacts the types of investments they make, and men are thought to have more confidence with money matters (Barber and Odean, 2001; Bliss and Potter, 2002). Women are thought to be more focused on helping people, while men are more concerned with making money and getting ahead in their companies (Bernardi and Arnold, 1997; Betz et al., 1989). These studies suggest that women are less likely to engage in unethical behavior in the workplace to gain financial rewards. Further, Bruns and Merchant (1990) establish that earnings management is an ethical issue, and Merchant and Rockness (1994) argue that earnings management practices raise the most important ethical issues facing the business profession.

3. Hypothesis Development

The existing literature shows that the earnings management is associated with audit committee characteristics. The characteristic of audit committees are argued to be a source of diversity on the board. A diversified board is argued to be more effective than homogenous boards because they can bring different perspective and opinions into a discussion. Further, females are argued to be more conservative, risk averse, high moral standards and more trustworthy than men. Thus, we examine the following hypothesis:

H1: Audit committees with higher women representatives are associated with more effective in constraining earnings management

4. Research Design

4.1 Sample Selection

The sample examined in this study was selected from the Main Board of Bursa Malaysia for the year end 2007. As at 31st December 2007, there were 636 financial and non-financial companies listed on Bursa Malaysia's Main Board. Due to different statutory requirements and materially different types of operations, all banks, insurance and unit trust companies as well as utilities companies were excluded from the population of interest (Davidson *et al.*, 2005; Peasnell *et al.*, 2005; Abdul Rahman and Mohamed Ali, 2006). After eliminating industries with less than eight firms (Davidson *et al.*, 2005; Abdul Rahman and Mohamed Ali, 2006) and complete corporate governance data, the final sample consist of 356 non-financial companies listed on Bursa Malaysia's Main Board.

4.2 Regression Model

This study used a linear multiple regression analysis to test the association between the dependent variable of discretionary current accruals and the independent variable of the presence of female directors on audit committee board:

PACDA = α_0 + β_1 *ACFEMALE* + β_2 *ACIND* + β_3 *ACFE* + β_4 *ACSIZE*+ β_5 *ACMULTIPLE* + β_6 *ACMEET* + β_7 *LGSIZE* + β_8 *LEV* + β_9 *ROA* + β_{10} *CFO* + ε

The dependent variable is earnings management measured by the absolute value of discretionary current accruals, scaled by lagged total assets *(PACDA)*. The independent variable consists of the presence of female directors on audit committee board measured by the proportion of female directors to the total number of audit committee members on the board of the company (*ACFEMALE*).

Consistent with prior studies (Peasnell *et al.*, 2000; 2005; Bedard *et al.*, 2004; Davidson *et al.*, 2005; Jaggi *et al.*, 2009), this study include audit committee independence *(ACIND)*, audit committee financial expertise *(ACFE)* audit committee size *(ACSIZE)*, audit committee multiple directorships *(ACMULTIPLE)*, audit committee meeting *(ACMEET)*, firm size *(LGSIZE)*, leverage *(LEV)*, return on assets *(ROA)* and cash flow from operation *(CFO)* as control variables in the regression model.

4.3 Dependent Variable

Recent study argued that current discretionary accruals are more subject to earnings manipulation and firm performance should also be considered in calculating discretionary accruals (Jaggi *et al.*, 2009). Taking these two factors into consideration, this study applies a cross sectional version of the performance-adjusted current discretionary accruals (PACDA) model to detect earnings management (Kothari *et al.* 2005).

$$TCA_{it}/AT_{it-1} = \alpha_0\,(1/AT_{it-1}) + \beta_1\,(\Delta REV_{it}/AT_{it-1}) + \beta_2\,(ROA_{it-1}) + \varepsilon_{it} \quad (1)$$

$$ECA_{it}/AT_{it-1} = \alpha_0\,(1/AT_{it-1}) + \beta_1\,(\Delta REV_{it}\text{-}\Delta AR_{it}/AT_{it-1}) + \beta_2\,(ROA_{it-1} \quad (2)$$

$$PACDA = TCA_{it}/AT_{it} - ECA_{it}/AT_{it-1} \quad (3)$$

Where;

TCA_{it}	=	total current accruals is net income (earnings before extraordinary items and discontinued operations) plus depreciation and amortization minus operating cash flows for firm *i* in the year *t*
ΔREV	=	change in revenue for firm *i* in the year *t*
ΔAR	=	change in accounts receivable for firm *i* in the year *t*
ROA	=	Ratio of net income before extraordinary items to total assets for firm *i* in the year *t-1*
AT	=	Total assets for firm *i* in the year *t*
ε_{it}	=	Error term for firm *i* in the year *t*

Consistent with Jaggi *et al.* (2009), the ordinary least squares (OLS) regression model was used to estimate industry specific parameters α and β. To estimate the industry specific parameter, Equation 2 was used comprising of data from all companies matched on the year of observation and categorized in the same industry grouping. Having estimated equation 2, the amount of discretionary accruals (PACDA) is calculated as the difference between the firm's total current accruals (TCA) and its expected current accruals (ECA). All variables in the accrual expectation model are deflated by total opening assets to reduce heteroscedasticity (Jones, 1991).

4.4 Descriptive statistics

Table 1. Descriptive Statistics for Dependent and Independent Variables

	Min	*Max*	*Mean*	*Std. Deviation*
ABSPACDA	0.00	0.71	0.06	0.07
ACFEMALE	0.00	0.67	0.05	0.12
ACIND	0.00	1.00	0.72	0.11
ACFE	0.00	1.00	0.34	0.16
ACSIZE	0.00	7.00	3.60	0.74
ACMULTIPLE	0.00	1.00	0.56	0.31
ACMEET	0.00	18.00	4.85	1.25
LGSIZE	4.46	7.65	5.78	0.50
LEV	0.01	0.91	0.43	0.20
ROA	-0.40	0.78	0.10	0.09
CFO	-1.87E5	7.07E6	1.5748E5	6.13742E5

As reported in Table 2, the mean of earnings management value as indicated by the absolute value of *PACDA* is 0.06 with minimum and maximum value of zero and 0.71, respectively. In terms female domination, the proportion varies from zero to about 67percent, with an average proportion of female directors on audit committee board of about 5 percent. The average, 5 percent, of the presence of female directors on audit committee board indicates the domination of male directors in the audit committee composition in Malaysia.

With respect to correlation among variables, the correlation matrix tested in the study confirms that no multicollinearity exists between the variable since none of the variables correlates above 0.80 or 0.90.

5. Results

5.1 Regression

Table 2. Regression Results

	Coefficients	t	Sig.
ACFEMALE	-.085	-1.685	.093*
ACIND	.029	.567	.571
ACFE	-.042	-.808	.420
ACSIZE	-.063	-1.185	.237
ACMULTIPLE	-.018	-.329	.743
ACMEET	.124	2.343	.020**
LGSIZE	-.241	-3.389	.001***
LEV	.201	3.602	.000***
ROA	.165	3.152	.002***
CFO	.339	5.525	.000***

***Significant at 0.01 level; **Significant at 0.05 level; *Significant at 0.1 level.

Consistent with expectations, this study finds a negative significant ($\rho < 0.10$) association between the presence of female directors on audit committee board *(ACFEMALE)* and discretionary current accruals *(PACDA).* The negative relationship suggests that the increase in women representation on the board of audit committee limits the ability for the board to manage earnings. In particular board of audit committee is suggested to become more effective in constraining the extent of earning management when more representation of women on the board. This is because women are more conservative, risk averse, high moral standards and more trustworthy than men, thereby less likely to manipulate corporate financial and other disclosures.

5.2 Discussion on Control Variables

Out of nine control variables included in the model, five were found to be significant. The coefficients on audit committee meeting, leverage, return on assets and cash flow from operation are positive and significant with discretionary current accruals. The coefficient on size is negative and significant with discretionary current accruals. None other controlled variables were found to be significant in the study.

6. Conclusion

The main objective of this study is to examine the association between earnings management and the gender of the board of audit committee. This study applies a cross sectional version of the performance-adjusted current discretionary accruals (PACDA) model to detect earnings management (Kothari *et al.* 2005). Using a sample of 356 companies for the year ended 2007, we found a significant negative relationship between the presence of women directors on audit committee boards and earning managements. The results suggest that the presence of women directors on audit committee boards reduces earning management practices. This study contributes to our understanding that women representations on the board of audit committee are effective to minimize agency cost in an East Asian Country like Malaysia.

References

1. Abdul Rahman, R & Mohamed Ali, FH. (2006) “Board, audit committee and earnings management: Malaysia evidence”, *Managerial Auditing Journal*, Vol. 21(7), pp. 783-804.
2. Al-Hayale and Lan, G. (2004), “Does female directorship on independent audit committee constrain earnings management?”, Journal of Business Ethics, Vol. 99(3), pp. 369-382.

3. Barber, B, M., Odean, T, (2001), "Boys will be boys: Gender, overconfidence, and common stock investment", Quarterly Journal of Economics, Vol. 116(1), pp. 261-292.
4. Bedard, J., S. M. Chtourou and L. Courteau. (2004), "The effect of audit committee expertise, independence, and activity on aggressive earnings management auditing, *A Journal of Pacific & Theory*, Vol. 23(2), pp.13-35.
5. Bernardi, R, A., Arnold, S. (1997), "An examination of moral development within public accounting by gender, staff level, and firm", Contemporary Accounting Research, Vol. 14(4), pp. 653-668.
6. Betz, M., O'Connell, L., Shepard, J, M., (1989), "Gender differences in proclivity for unethical behavior, Journal of Business Ethics", Vol.8 (5), pp. 321-324.
7. Bliss, R, T., Potter, M, E. (2002), "Mutual fund managers: Does gender matter?", Journal of Business & Economics Studies, Vol. 8(1), pp.1
8. Clikeman, P. M., (2001), "The quality of earnings in the information age", Issues in Accounting Information, Vol.17 (4), pp. 411.
9. Davidson, R, Goodwin- Stewart, J & Kent, P. (2005), "Internal governance structures and earnings management", Accounting and Finance, pp. 1-27.
10. Fondas and Sassalos. (2002), "Feminization unveiled: Management qualities in contemporary writings", Academy of Management Review, Vol.22 (1), pp.257-282.
11. Gul, F., B. Srinidhi and J. Tsui. (2007), "Do female directors enhance corporate board monitoring? some evidence from earning quality", Working paper, Hong Kong Polytechnic University.
12. Jaggi, B, Leung, S & Gul, FA. (2007), "Family control, board independence and earnings management: Evidence based on Hong Kong firms", Journal of Accounting Public policy, Vol. 28, pp. 281-300.
13. Klein, A. (2002), "Audit committee, board of director characteristics, and earnings management", Journal of Accounting and Economics, Vol.33 (3), pp. 375-400.
14. Kothari, s. p., A. J. Leone and C. E. Wasley. (2005), "Performance matched discretionary accrual measures", Journal of Accounting and Economics, Vol. 39, pp.163-197.
15. Marra, A., Ghosh, A., Moon, D,. (2009), "Corporate boards, audit committees, and earnings management: Pre-and post sox evidence, Journal of Business Finance and Accounting, Vol.37 (9/10), pp.1145-1176.
16. Peasnell, KV, Pope, PF & Young, S. (2005), "Accrual management to meet earnings targets: UK evidence pre and post Cadbury", British Accounting Review, Vol. 32, pp. 415-445.
17. Peni., Vahamaa, S. (2004), "Does female representation on audit committees affect audit fees?", Journal of Finance & Accounting, Vol. 49(3/4), pp.113-139.
18. Pomeroy, B., Thornton D, B. (2008), "Meta-analysis and the accounting literature: The case of audit committee independence and financial reporting quality. European Accounting Review, Vol.17 (2), pp. 305-330.
19. Rockness, J., and Merchant, K, A. (1994), "The ethics of managing earnings: An empirical investigation", Journal of Accounting & Public Policy, Vol.13 (1), pp.79-94.
20. Schipper, K. (1989), "Commentary on earnings management", Accounting Horizons, Vol. 3(4), pp. 91-102.
21. Sun, J., Liu, G., Lan, G. (2011), "Does female directorship on independent audit committees constrain earnings management?", Journal of Business Ethics, Vol. 99, pp.369-382.
22. Turley, S., Zaman, M. (2004), "The corporate governance effects of audit committee", Journal of Management & Governance, Vol. 8(3), pp. 305-332.
23. Xie, B., Davidson., Wallace, N., Dadalt, P. J. (2003), "Earnings management and corporate governance: The role of the board and the audit committee", Journal of Corporate Finance, Vol.9(3), pp. 295.
24. Zhang, Y.,Zhou, J., Zhou, N. (2007), "Audit committee quality, auditor independence, and internal control weaknesses", Journal of Accounting & Public Policy, Vol. 26(3), pp. 300-327.