Mitigating earnings management: Does Ceo's accounting background Matter?

Yvonne Joseph Ason
Emelia A. Girau
Imbarine Bujang
Agnes Paulus Jidwin
Universiti Teknologi MARA Malaysia

Keywords
CEO, accounting background, earnings management

Abstract

It was documented that there had been an increase in the preference to hire CEO with accounting background since the introduction of the Sarbanes Oxley Act in 2002 in relation to major corporate collapses due to excessive earnings management that had led to accounting scandals. However, prior studies also suggested that little attention had been paid to address the relationship between the CEOs' accounting backgrounds and earnings management. Thus, this study attempts to determine the said relationship from Malaysian context. Both the governance and financial data of the Malaysia FTSE 30 companies were collected manually from the companies' annual reports. The findings however showed insignificant relationship between CEOs' accounting backgrounds and earnings management but suggested that the composition of independent directors on board and big four audit firms are still the effective corporate governance mechanisms in mitigating the earnings management activity of the company.

Introduction

Companies all over the world had been under the scrutiny when it comes to their financial reporting quality ever since the collapse of Enron in year 2000. New acts had been enacted by regulators to ensure earnings reported by companies represent their true performance. Academicians also showed their interest by conducting thorough research in effort to find the most effective corporate governance mechanisms that can lessen the earnings management activities. However, after all the efforts done by both the regulators and academicians, earnings management activities still occur. This can be seen through a finding from Hasan, Omar, Barnes, & Handley-Schachler (2017) which documented that 34% of sample which consists of a total of 2,800 companies, in selected Asian countries are not presenting their financial statements in truthful manner. Thus, shareholders' wealth continues to be eroded as a result from the opportunistic behaviour of the company's management team. This indicates the need for new search in order to look for other potential corporate governance mechanism that can mitigate the earnings management activities. One corporate governance aspect that might be able to reduce the earnings management activities the CEO's accounting background. Therefore, this study attempts to determine the relationship between CEOs' accounting backgrounds and earnings management.

It was documented that there is an upward trend in the preference to hire individual with accounting and finance background after the introduction of the 2002 Sarbanes-Oxley Act (SOX) in response to several corporate accounting scandals that occurred in the 2000–2002 period. Hu (2006) suggested that if directors had hired CEO with more knowledge in accounting or finance fields, may be some of the high-profile frauds which happened during the pre-SOX period might not occurred at all. The trend in hiring individual with accounting background can also be an attempt done by the corporate community to improve the accuracy and reliability of corporate disclosures as urged by the Act (Cullinan & Roush, 2011). As a matter of fact, Fino (2018) documented that about 18% of CEOs at the United Kingdom (UK) FTSE 100 companies have accounting backgrounds. 51% of the CEOs in the same category of company have a background in finance. This encouraging trend support the notion that the preference to hire CEO has changed as this post traditionally was held by CEO with sales or marketing background. In Malaysia, a preliminary content analysis documented the same trend as in the UK was spotted. 12 out

of 30 companies at our FTSE 30 have their CEOs with accounting background. In percentage form, it is about 40% from the Malaysia's top 30 companies' CEOs are having accountancy qualifications. Despite the increasing trend in hiring individual with accounting background, little attention was paid to study empirically the effectiveness of the CEOs' accounting backgrounds to mitigate earnings management (Hu et. al., 2017). They claimed that their study on CEOs' accounting backgrounds and its relation to earnings management was the first of its kind. Thus, the relationship between CEOs with accounting backgrounds and how effective they are in mitigating earnings management still need more empirical supports, hence, the objective of this study. This study is organized into five sections. The current section gives an overall picture of this study. The second section discusses the prior studies relating to the issues as well as the results obtained. The third section discusses the research methodology used. Next, section four discusses the results from this study. Lastly, conclusion and recommendation for future research will be discussed in the final section.

Literature review

The major popularity of the application of the agency theory to the relationship between shareholders and the board of directors produced a vast amount of research devoted to this issue. In fact, this phenomenon relates to those cases in which ownership and management are represented by different individuals. Being each individual maximising its utility leads to the existence conflicting positions between the agent and the principal. According to Jensen and Meckling (1976),

"a conflict is created by the information asymmetry that exists in complex corporate structures between a privileged management (i.e. agent) and a more remote body of stakeholders (i.e. principal)"

The management team of the company may have all the opportunities to make use of their position for their own benefit, by managing the financial reporting to get the outcome that they have planned. The informational viewpoint assumes that the financial reports provided by the management contained true and fair view of the company's financial condition, thus, assist the stakeholders in making useful economic decisions. Individual investors are not all educated with accounting principles, thus, difficult for them to detect or even notice about the manipulation (if any) in the financial statements. Furthermore, insufficient personal skill set, indifference or an unwillingness to engage in detailed analysis as explained through the mechanistic or naïve investor hypothesis as discussed by Breton and Taffler (1995) will make it even difficult for individual investors to notice about the financial numbers game.

The downfall of the classic case of Enron had prompted a series of new legislation attempts such as the Sarbanes Oxley Act 2002 in the US. This new legislation attempts also available in Malaysia whereby the Securities Commission of Malaysia has established the Malaysian Code on Corporate Governance (MCCG) with the recent amendment on MCCG 2017 to govern the corporate governance practices among Malaysian companies. Apart from attempt by the authoritative bodies, academicians also had shown attempts to search for the internal corporate governance mechanisms which are effective in mitigating the earnings management activities (Moradi, Salehi, & Najari, 2012; R. A. Rahman & Mohamed Ali, 2006). However, despite all the efforts (both by the government and academicians), the news on corporate involved in accounting scandals still being reported by the mainstream media. This implied that efforts should be continued to examine any other internal governance mechanism that can mitigate the earnings management.

CEO with accounting background is more conservative and less likely to engage in earnings management activity (Matsunaga & Yeung, 2008). However, Hu et. al. (2017) found a contradict finding suggesting that when firms faced the pressure to meet the earnings benchmarks, it is possible that CEOs with accounting backgrounds are more likely to overstate earnings and report more positive discretionary accruals because they know how to do it. Therefore, this study attempts to fill in the gap by determining the relationship between CEO's accounting background and earnings management.

This study also includes other established corporate governance variables following the prior studies (i.e. Hu et. al., 2017; Demers and Wang, 2010; Francis, Maydew and Sparks, 1999) that empirically proven to be able to mitigate earnings management. Those variables are the age and gender of the CEO, the presence of women on board, the composition of the independent directors on board and whether the company appoints auditor from the big four audit firm. Other than that, following prior studies (i.e Hu et. al, 2017; Skinner and Sloan, 2002; DeFond and Jiambalvo, 1994), this study also includes other control

variables that are found to influence the tendency of the company to engage in earnings management activity. Those control variables are the debt to equity ratio (LEV), capital intensity (CI), return on assets (ROA) and the company's total revenue (represented by natural log of the company's total revenue indicated as LnREV).

Data and Methodology

Sample of the study is the Top 30 FTSE companies on Bursa Malaysia following para. 2.6 of the new MCCG 2017 stating that

"As listed companies are not a homogeneous group, it is necessary to provide flexibility and proportionality in the application of certain best practices. Certain practices are applicable only to Large Companies"

MCCG 2017 defined large companies as either company listed on Malaysia's FTSE 100 or companies with market capitalization of RM2 billion. However, at the time this study was conducted, only the FTSE 30 list was made available, hence, the sample selected for this study. The time period taken for this study were from 2013 until 2017. The selection is based on the first requirement by the MCCG 2012 on the separation of role between Chairman and CEO starting year 2012. Since this study focus on the role of CEO and its relation towards earnings management, year 2013 was chosen to consider the transition of the change as required by the MCCG. Both the financial and corporate governance data were taken from the FTSE 30 companies annual reports.

Firstly, accounting background of the CEO will be taken from the company's annual report; coded 1 if the CEO has accounting background (i.e having qualification in Bachelor/Degree in Accounting, member of any accounting professional bodies or an experienced CFO before his or her tenure as CEO); coded 0 if the CEO has none accounting background.

Secondly, earnings management as represented by discretionary accruals is calculated following Dechow et. al. (1995), where total accruals will be obtained first through the following equation:

$$TAC_{it} = (\Delta CA_{it} - \Delta CL_{it} - \Delta CASH_{it} + \Delta STD_{it} - DEP_{it}) / A_{ijt-1} \quad (1)$$

Where;

TAC_{it} = total accruals for company *i* in year *t*

ΔCA_{it} = change in current assets for company *i* in year *t*

$\Delta CASH_{it}$ = change in cash and cash equivalents for company *i* in year *t*

CL_{it} = change in current liabilities for company *i* in year *t*

ΔSTD_{it} = change in short term debt and current portion of long-term debt for company *i* in year *t*

DEP_{it} = total depreciation and amortization expense for company *i* in year *t*

Using the same Modified Jones (1991) Model, the level of discretionary accruals for a firm is calculated as the difference between the firm's total accruals (TAC) and its non – discretionary accruals (NDAC), as estimated in equation 2 below:

$$NDAC_{ijt} = \beta_0[1/A_{ijt-1}] + \beta_{1j}[\Delta REV_{ijt} - \Delta REC_{ijt}/A_{ijt-1}] + \beta_{2j}[PPE_{ijt}/A_{ijt-1}] \quad (2)$$

where β_0, β_{1j} and β_{2j} are industry-specific coefficients estimated from the cross-sectional regression in equation 3:

$$TAC_{ijt}/A_{ijt-1} = \beta_0[1/A_{ijt-1}] + \beta_{1j}[\Delta REV_{ijt}/A_{ijt-1}] + \beta_{2j}[PPE_{ijt}/A_{ijt-1}] + \varepsilon_{ijt} \quad (3)$$

Where;

TAC_{ijt} = total accruals for firm *i* in industry *j* in year *t*,

ΔREV_{ijt} = change in revenue for firm *i* in industry *j* between year *t − 1* and *t*,

PPE_{ijt} = gross property, plant and equipment for firm *i* in year *t*,

A_{ijt-1} = total assets for firm *i* in industry *j* at the end of the previous year,

ΔREC_{ijt} = change in receivables for firm *i* in industry *j* between year *t − 1* and *t*.

Thus, the discretionary accruals (DAC) for firm *i* in industry *j* for year *t* is calculated as the residual value from equation 4 below:

$$DAC_{ijt} = \varepsilon_{ijt} = TAC_{ijt} - NDAC_{ijt} \quad (4)$$

In order to determine the relationship between CEOs with accounting backgrounds and earnings management, the following empirical adopted from Hu et. al. (2017) was used:

$$DAC_{it} = \beta_0 + \beta_1 CEO\_EB_{it} + \beta_2 CEO\_G_{it} + \beta_3 CEO\_Age_{it} + \beta_4 WOB_{it} + \beta_5 COM\_ID_{it} + \beta_6 BIG\_FA_{it} + \beta_7 LEV_{it} + \beta_8 CI_{it} + \beta_9 ROA_{it} + \beta_{10} LnREV_{it} + \varepsilon_{it} \quad (5)$$

Panel data technique is used to achieve the objectives of this study. The estimation procedures will start with descriptive statistic which provides simple summary to characterize the attributes of a data set. In case of high skewness as a result from a data which are not normally distributed, the natural logarithm (ln) is used for reducing right skewness. Next, testing for stationarity in panel data models or panel unit root tests made the crucial assumption that the individual time series in the panel were cross-sectionally independent of each other. Levin–Lin–Chu (1994), Breitung (1996) and Im-Pesaran-Shin (1998) are used for this purpose. In order to determine the poolability of the data, Breusch–Pagan test is used to test for heteroskedasticity in a linear regression model to imply many economic applications where time-series and cross-section data may be pooled. If the data cannot be pooled, then the Newey West HAC test is to be considered to circumvent the issue of heteroskedasticity-robust standard errors invalid that may cause misleading inference. Next, the Hausman Specification Test is used to detect endogenous regressors (predictor variables) in a regression model. Lastly, diagnostic checking will be performed to ensure the adequacy of the models used in this study before any conclusion is drawn.

Findings

The final sample of this study consists of 85 observations. From the FTSE 30 list, 7 financial institutions, 1 utility company, 3 highly regulated companies from oil and gas industry and 2 companies with insufficient information were excluded from the sample. Table 1 shows the summary statistics of the variables used in this study. The results show that about 27% of the companies in our sample are having CEOs with accounting backgrounds (CEO_EB) and 94% of the CEOs are male (CEO_G). On average, the CEOs are 55 years old (CEO_AGE). DAC is the discretionary accruals measured using modified Jones (1991) model. Lower values of the residuals obtained from using the modified Jones (1991) model indicates higher earnings quality. The companies' total revenue will be transformed using the natural logarithm to provide more meaningful scale, thus, will be indicated as LnREV thereon.

Table 1: The summary statistics of sample characteristics

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
DAC	85	-.3565	.5568	-.032202	.1106872	1.363	.261	9.302	.517
CEO_EB	85	0	1	.27	.447	1.051	.261	-.917	.517
CEO_G	85	0	1	.94	.237	-3.818	.261	12.877	.517
CEO_AGE	85	42	74	55.42	6.518	.309	.261	-.596	.517
WOB	85	0	1	.76	.427	-1.271	.261	-.395	.517
COM_ID	85	.0769	.7500	.490974	.1358683	-.163	.261	-.203	.517
BIG_FA	85	0	1	.82	.383	-1.728	.261	1.009	.517
LEV	85	.0016	.5602	.211721	.1564578	.548	.261	-.647	.517
CI	85	.0626	.6891	.391001	.1397245	-.510	.261	.195	.517
ROA	85	.0149	.5802	.109092	.1125934	2.493	.261	6.299	.517
REV	85	3312917	46812300	13102597	9895709	1.747	.261	3.009	.517

Table 1 presents the summary statistics of sample characteristics. The dependant variable is earnings management as proxied by discretionary accruals and the main independent variable represented by CEO accounting background. CEO demographic information represented by CEO gender and age. Other corporate governance mechanisms represented by the presence of women on board, the composition of independent director and whether the company is appointing auditor from big four audit firm. Other control variables represented by leverage, capital intensity, return on assets and total revenue of the company.

Table 2 shows the Pearson Correlation among the variables involved. From the table, it is documented that CEOs accounting background and earnings management are negatively correlated. The preliminary result presented in Table 2 suggests that CEOs with accounting backgrounds is more likely able to mitigate earnings management.

Table 2: Pearson Correlation matrix

	DAC	CEO_EB	CEO_G	CEO_AGE	WOB	COM_ID	BIG_FA	LEV	CI	ROA	LnREV
DAC	1.000										
CEO_EB	-0.011	1.000									
CEO_G	0.319	-0.410	1.000								
CEO_AGE	0.148	0.009	0.132	1.000							
WOB	-0.110	-0.099	-0.139	-0.460	1.000						
COM_ID	-0.103	-0.043	0.108	0.202	-0.344	1.000					

BIG_FA	-0.256	0.004	-0.116	-0.003	0.034	0.301	1.000				
LEV	-0.124	0.162	-0.481	0.072	0.026	-0.403	-0.169	1.000			
CI	0.025	0.104	0.175	-0.074	-0.135	0.247	0.201	0.031	1.000		
ROA	-0.163	-0.195	0.008	-0.451	0.177	0.091	0.227	-0.210	0.227	1.000	
LnREV	0.031	0.157	0.272	0.374	-0.105	-0.196	0.131	0.051	0.232	-0.334	1.000

The regression results are interpreted after the diagnostic checking on the heterokedasticity, multicollinearity and serial correlation issues of the data have been performed. The results are presented in Table 3. This table presents the results of estimating the relationship between discretionary accruals and CEOs accounting background. Discretionary accruals were obtained from the modified Jones (1991) model. The significance is indicated by (**) and (*) at 5% and 10% levels respectively. Based on the analysis, at 5% confidence interval, CEOs' accounting backgrounds has a positive but insignificant relationship with earnings management. The insignificant relationship with earnings management also found in CEO gender and the presence of women on board. Surprisingly, the age of CEO has a significant positive relationship with earnings management. This means that, the older the CEO gets, the higher the desire of the CEO to engage in earnings management. For the composition of independent directors, the result is as expected where at 10% confidence interval, it has a negative relationship with earnings management. This result indicates that, the more independent directors on board, the more the company is unlikely to engage in earnings management activity. The big four audit firms also play a significant role in mitigating earnings management. As seen in the results table, at 5% confidence interval, big four audit firm has a significant negative relationship with earnings management. This result shows that the company which appoint auditor from big four audit firms is unlikely to engage in earnings management. Unfortunately, this study fails to find any significant relationship between the other control variables namely debt to equity ratio, capital intensity, return on investment and total revenue with earnings management.

Table 3: The results of estimating the relationship between discretionary accruals and CEOs accounting background.

	Beta coefficient	T-value
CEO_EB	0.0324	0.77
CEO_G	0.1540	1.45
CEO_AGE	0.0036**	2.22
WOB	-0.0076	-0.39
COM_ID	-0.2481*	-1.87
BIG_FA	-0.0330**	-2.34
LEV	-0.1182	-0.62
CI	0.1362	1.33
ROA	-0.1541	-1.60
LnREV	-0.0480	-1.62
Constant	0.5329*	1.81
R^2	0.2405	
F-stat	0.0000	
N	85	

Discussion and Conclusion

This study attempts to determine the relationship between CEOs' accounting backgrounds and earnings management. Prior studies (i.e. Hu et. al (2017) and Matsunaga & Yeung (2008)) had documented that CEOs' accounting background affect the companies' behaviour towards earnings management. Unfortunately, this study does not find any significant relationship between CEOs' accounting backgrounds and earnings management. This provide further opportunity to examine the level of conservatism of the CEOs with accounting backgrounds. They might not be conservative enough, thus, not helpful in mitigating earnings management. Nevertheless, despite the insignificance relationship found in the CEOs' accounting backgrounds and earnings management, this study has documented several interesting findings. Firstly, CEO's age is found to have a significant positive relationship with earnings management. This finding is like Demers and Wang (2010) which suggested that younger CEOs are less likely to involve in earnings management activities because they are not aware of the benefits of doing so. While older CEOs with substantial years of experience know the earnings management 'games' and the 'perks' arriving therefrom. Second finding from this study suggested that the role of independent director in mitigating earnings management cannot be denied. This study documented a significant

negative relationship between the composition of independent directors and earnings management which suggested the relevance of the requirements by the Bursa Securities Listing Requirements for company to fulfil at least one third or 2 (whichever is higher) of the directors on boards must be independent directors. Lastly, the reputation of big four audit firms is good in mitigating earnings management. The result showed a significant negative relationship between big four audit firm and earnings management. This finding is consistent with the study done by Francis, Maydew & Sparks (1999) which suggested that auditors from big audit firms constrained aggressive and potentially opportunistic reporting of accruals. This is in line with the expectation that big audit firms have a brand-name reputation and their performance are expected to be excellent when it comes to providing high quality audits than the non-big audit firms.

This study certainly has its limitation, whereby, the sample selected for this study was limited to the companies listed as FTSE 30 companies in Malaysia only. A better finding could be drawn if larger sample was chosen, thus, enhance the generalization of the result to the whole population. Hence, future study should broaden the sample size. Apart from CEOs' accounting backgrounds, CEOs' conservatism should also be examined in order to support the notion that people with accounting backgrounds should have better ethics when it comes to financial reporting because they know the dos and don'ts in the financial reporting.

References

Breton, G. and Taffler, R.J. (1995). Creative accounting and investment analyst response. Accounting and Business Research, Vol. 25, No. 98, pp. 81-92.

Cullinan, C. P., & Roush, P. B. (2011). Has the likelihood of appointing a CEO with an accounting/finance background changed in the post-Sarbanes Oxley era? *Research in Accounting Regulation*, *23*(1), 71–77. https://doi.org/10.1016/j.racreg.2011.03.005

Dechow, P.M., Sloan, R.G., and Sweeney, A.P. (1995), Detecting Earnings Management, The Accounting Review, 70, 193-225.

Defond, M. L., and J. Jiambalvo. (1994). Debt covenant violations and manipulation of accruals. Journal of Accounting and Economics 17: 145-176.

Demers, E. A. and Wang, C. (2010). The Impact of CEO Career Concerns on Accruals Based and Real Earnings Management. Available at SSRN: https://ssrn.com/abstract=1545534 or http://dx.doi.org/10.2139/ssrn.1545534

Fino, J. (2018). Fifth of FTSE 100 CEOs are accountants, retrieved online from https://economia.icaew.com/news/february-2018/fifth-of-ftse-100-ceos-are-accountants.

Francis, R. J., Maydew, E. L. & Sparks, H. C. (1999). The Role of Big Six Auditors in the Credible Reporting of Accruals. Auditing A Journal of Practice & Theory 18(2) · DOI: 10.2308/aud.1999.18.2.17

Hasan, M. S., Omar, N., Barnes, P., & Handley-Schachler, M. (2017). A cross-country study on manipulations in financial statements of listed companies Evidence from Asia. *Journal of Financial Crime*, *24*(4), 656–677. https://doi.org/10.1108/JFC-07-2016-0047

Hu, N., Huang, R., Li, X., & Liu, L. (2017). The impact of CEOs' accounting backgrounds on earnings management and conservatism. *Journal of Centrum Cathedra*, *10*(1), 4–24. https://doi.org/10.1108/JCC-10-2016-0016

Hu, T. C. H (2006). Enron happens, retrieved online from https://www.nytimes.com/2006/01/30/opinion/enron-happens.html

Jensen, M.C. and Meckling, W.H. (1976). Theory of the firm: managerial behaviour, agency costs and ownership structure. Journal of Financial Economics, 3, pp.306-360.

Matsunaga, S. R., & Yeung, P. E. (2008). Evidence on the Impact of a CEO ' s Financial Experience on Quality of the Firm ' s Financial Reports and Disclosures. *AAA 2008 Financial Accounting and Reporting Section (FARS) Paper*.

Moradi, M., Salehi, M., & Najari, M. (2012). A study of the effective variables on earning management: Iranian evidence. *Research Journal of Applied Sciences, Engineering and Technology*, *4*(17), 3088–3094

Rahman, R. A., & Mohamed Ali, F. H. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial Auditing Journal*, *21*(7), 783–804. https://doi.org/10.1108/02686900610680549

Skinner, D.J. & Sloan, R.G. (2002). Earnings Surprises, Growth Expectations, and Stock Returns or Don't Let an Earnings Torpedo Sink Your Portfolio. Review of Accounting Studies, 7: 289. https://doi.org/10.1023/A:1020294523516