RESEARCH ARTICLE

Corporate Social Responsibility and Earnings Management: Evidence From Controversial and Non-Controversial Sectors in Asia

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In this study, we investigate the impact of corporate social responsibility (CSR) on earnings management through discretionary accruals and real-activities decisions, in light of the increasing attention and engagement of firms from different sectors. This study contemplates on non-financial Asian firms from controversial and non-controversial sectors with 889 and 3,017 firm-year observations from 2011 to 2017. The findings reveal that Asian firms likely use a mix of accrual-based earnings management (AEM) and real-activities earnings management (REM) as a strategy to manipulate reported earnings. In terms of sector classifications, managers from controversial sectors exhibit higher opportunistic behavior than managers from non-controversial sectors regarding accrual-based manipulation. We conjecture that CSR in controversial sectors is driven by a high demand for responsibility and actions based on its business operation, a motivation for managers to deceive stakeholders and behave opportunistically. In addition, we find that managers of non-controversial sectors are conservative in real-activities manipulations. However, CSR of firms from controversial sectors showed to have an insignificant effect on this manipulation strategy, consistent with managerial amorality towards real activities decision. Our findings contribute to the reconciliation of the impact of building corporate citizenship culture when providing credible financial reports. Lastly, the implications for sustainable business operation from the cognizance of controversies in managerial decisions are elaborated.

Keywords: controversial sectors, corporate social responsibility, discretionary accruals, earnings management, real-activity decisions

JEL Classifications: M14, M41, M48

Ethical stakeholders demand great social responsibility from today's corporations. This increasing pressure is associated with attitude and demand towards changes in global living conditions (Vu & Buranatrakul, 2018). Firms take responsibility and action regarding the impact of business operations on stakeholders in the business ecosystem. Corporate social responsibilities (CSR) refers to firms' corporate citizenship based on demand for environmental protection, social engagements, and corporate governance (Wang, 2011). It ensures the sustainability of firms via sound business practices, which promote accountability, information transparency, and corporate philanthropy (Cai, Jo, & Pan, 2012).

Corporate reputation is essential for the sustainability of business operation, which can be attained by setting internal targets and meeting stakeholders' expectations. Aqueveque, Rodrigo, and Duran (2018) mentioned that CSR might enhance corporate reputation among stakeholders from the broadly documented literature. In addition, the expectation of stakeholders on firms' contribution to society can be fulfilled through CSR, which creates a positive opinion about the entity (Aksak, Ferguson, & Duman, 2016). Prior studies also argued that CSR has a positive influence on firms' financial performance and may use it to achieve firms' internal targets (Wang, 2011; Von Arx & Ziegler, 2014).

Aside from the impact of CSR on firms' performance and market value, another major issue in its pervasiveness is its influence on earnings management. Earnings management is the exertion of discretion and judgment in financial statements preparation from the management opportunities provided by accounting standards, resulting in less credible information (Hong & Andersen, 2011). Some of the common techniques used for managing earnings include "big bath charges," "cookie jar reserves," and "revenue recognition" (Abdelghany, 2005). Firms' CSR engagement may worsen the agency problems because managers are more motivated to conduct earnings manipulation to cover up the usage of resources for economic gain through wealth creation without the consideration of stakeholders (Chih, Shen, & Kang, 2008).

Prior studies provide evidence affirming that high commitment to CSR activities is an effective strategy for inefficient CEOs (Goel & Thakor, 2003; Cespa & Cestone, 2007; Chih et al., 2008; Prior, Surroca, & Tribó, 2008). The evidence also shows that earnings management intend to reduce relevant information.

These actions result in a damaged collective interest towards stakeholders. These works of literature show that CSR is an avenue for opportunistic managerial behavior. However, other prior studies revealed that CSR might constrain earnings management, leading to a more credible financial information (Hong & Andersen, 2011; Kim, Park, & Wier, 2012; Scholtens & Kang, 2013).

Recent studies contemplate on two proxies of earnings management: accrual-based earnings management and real-activities earnings management. Accrual-based earnings management (AEM) is a change in the accrual process, whereas real-activities earnings management (REM) is the deviation from normal business activity (Enomoto, Kimura, & Yamaguchi, 2015). REM is an action from management, which deviates from the typical business operation to achieve certain earnings threshold (Roychowdhury, 2006). It is expensive and inconsistent with optimal operating decisions (Zang, 2012). Hong and Andersen (2011) and Kim et al. (2012) ascertained that firms' CSR activities constrain AEM and REM, resulting in a transparent and reliable financial report. However, other studies revealed mixed findings regarding these proxies of earnings management and provided evidence on the trade-off between AEM and REM (Bozzolan, Fabrizi, Mallin, & Michelon, 2015; Jordaan, De Klerk, & de Villiers, 2018).

These previous studies provide theoretical and practical implications in the cognizance of the phenomenon. However, to the best of our knowledge, studies about the impact of CSR on earnings management in the Asian region are still limited. Prior studies have been contemplated on different conditions and settings but are mostly Western context. Most of these studies also investigated the phenomenon using accrual-based strategy. Asian firms are characterized by a high concentration of family-owned firms (Scholtens & Kang, 2013) and are described as a region with relatively poor corporate governance (Welford, 2007). Firms characterized as a family-owned business with poor corporate governance utilize socially responsible practices to manipulate earnings and divert stakeholder's attention (Gavana, Gottardo, & Moisello, 2017).

Moreover, there is a lack of research regarding the role of CSR on earnings management in sector-specific contexts, such as controversial and non-controversial sectors. Controversial sectors are

typically characterized as entities with strong debate about morality and political pressures, including sinful industries, such as tobacco, gambling, alcohol, and adult entertainment, as well as industries involved with emerging environmental, social, and ethical issues including defense, biotechnology, energy, and basic materials (Cai et al., 2012). In addition, Cai et al. (2012) explained that sustainability is a special consideration on firms from controversial sectors and its ethical objective of doing socially responsible activities remain a puzzle.

We develop an empirical study to fill the gap in the literature and contemplate on: How do CSR ratings relate to earnings management of firms in Asia? In addition, this study reflects on: How do CSR ratings relate to earnings management of firms from controversial and non-controversial sectors? The central aim of this study is to investigate the impact of building citizenship culture through CSR programs on earnings management through discretionary accruals and operating decisions.

The remainder of the paper is organized as follows: Section 2 briefly discusses empirical literature and presents formulated hypotheses of the study. Section 3 explains the methodology applied in this study. Section 4 presents the findings with corresponding analysis and interpretations. Lastly, Section 5 concludes the paper and provides recommendations for further studies.

Literature Review and Hypotheses Development

Prior literature provides contradicting evidence supported by agency theory and stakeholder's theory. Agency relationship pertains to the divergence of interests and information asymmetry between shareholders and managers. Managers utilize firms' resources to maximize personal agenda at the expense of other stakeholders (Jensen & Meckling, 1976). In addition, managers manipulate earnings to cover up unnecessary expenditures and mismanagement of resources and show their good management and performance (Mahjoub & Miloudi, 2015).

On the other hand, CSR activities build citizenship culture among stakeholders' satisfaction and create a positive outcome for the enterprise (McWilliams, Siegel, & Wright, 2006). Freeman (1984) explained that the implementations of company policies should satisfy not just shareholders but also the workers, customers,

suppliers, and community organizations. These stakeholders are most urgent to business whom firms must be responsive (Cai et al., 2012). The engagement of firms in CSR interacts with the moral and ethical dimensions of stakeholder's theory (Donaldson & Preston, 1995). In addition, the reconciliation of the manager's objectives and stakeholder's expectations is the primary consideration in stakeholder's management (Freeman, 1984; Donaldson & Preston, 1995).

Hong and Andersen (2011) conjectured that firms which are more socially responsible have higher quality accruals after exploring issues such as community, corporate governance, diversity, products, employee relations, the environment, and human rights, as realized from 8,078 observations between 1995 and 2005. Kim et al. (2012) examined whether firms that exhibit CSR activities constrain earnings management, resulting in a transparent and reliable financial report. Their study revealed that firms' engagement in CSR activities has a constraining role in earnings manipulation through AEM and REM. In effect, ethical considerations are likely to drive managers to produce high-quality financial reports.

AEM and REM Trade-off

Bozzolan et al. (2015) explained that CSR-oriented firms are less likely to engage in REM than in AEM. Their study evidence suggested that CSR orientation acts as a constraint for REM and, in doing so, it contributes to the creation of value for all stakeholders, based on 5,863 firm-year observations from 1,141 unique firms, covering 24 different countries from 2003 to 2009. In similar findings, Jordaan et al. (2018) found that firms with better CSR performance based on socially responsible investment (SRI) index are less likely to engage in REM, suggesting that managers utilize accrual-based earnings manipulation more than managing earnings through actual company resources after investigating listed South African companies.

This study reflects on the trade-off between AEM and REM considering the opportunistic and constraining effect of CSR on earnings management, following the study of Bozzolan et al. (2015) and Jordaan et al. (2018). First, we conjecture that CSR engagement of firms from Asian markets utilizes accrual-based accounting to manipulate earnings and conceals the company's authentic performance. Hence, the researchers develop the following hypothesis:

H_1. Opportunistic effect hypothesis: CSR ratings have a significant and positive effect on AEM.

On the other hand, CSR engagement of firms from Asian countries constrains involvement on real-activities in earnings manipulation and build citizenship culture among stakeholders. REM has three residuals: abnormal cash flow from operation (AB_CFO), abnormal production (AB_PRD), and abnormal discretionary expenses (AB_EXP; Roychowdhury, 2006). Roychowdhury (2006) and Cohen, Dey, and Lys (2008) explained that lower AB_CFO and AB_EXP might indicate a higher REM because it increases company sales that may not be realized in cash, resulting to a lower accounting quality. In addition, a higher AB_PRD may indicate a higher REM due to overproduction of inventories, resulting in a lower accounting quality. Lastly, when the combination of AB_CFO, AB_PRD, and AB_EXP as REM resulted in a higher (positive) value, it indicates a lower earnings management resulting in a higher accounting quality. Hence, we develop the following hypothesis:

H_2. Constraining effect hypothesis: CSR ratings have a significant and positive effect on REM.

CSR of Controversial Sectors

The impact of business operation of controversial industry sectors on society and the environment have attracted attention from academic scholars for almost a decade (Cai et al., 2012; Aqueveque et al., 2018). Jo and Na (2012) explained that the CSR programs implementation of these sectors does not truly depict its purpose as part of firms' core business to reduce negative impact and unfavorable public perception. Thus, the attempts by controversial industries to counter their sinfulness by CSR activities may backfire because the public and consumers see through this. Barnea and Rubin (2010) argued that CSR implementation of managers from controversial sectors is due to unethical motives, whose intention is to enhance their personal agenda by boosting their reputation as social citizens at the cost of shareholders' wealth. Moreover, stakeholders of these sectors have a huge demand for greater informational needs resulting in high CSR disclosure (Grougiou, Leventis, Dedoulis, & Owusu-Ansah, 2014).

This study contemplates on the role of CSR on earnings management of firms from controversial and non-controversial sectors. Accordingly, we conjecture that companies categorized as controversial sectors with high-CSR engagement will reveal strong earnings manipulation through discretionary accruals, whereas companies categorized as non-controversial sectors with high-CSR engagement will reveal less involvement in manipulation through real-activities decisions. In addition, we conjecture that high expectation of stakeholders from controversial sectors may explain the variation to compare and contrast the phenomenon between these two sectors. Hence, we develop the following hypotheses:

H_3. Firms from controversial sectors with high-CSR ratings are engaged in AEM more than firms from non-controversial sectors.

H_4. Firms from non-controversial sectors with high-CSR ratings are engaged in REM less than firms from controversial sectors.

Research Methodology

Data and Sample

We obtained an initial sample of 752 listed firms in Thomson Reuters's ESG database after matching with other financial data from the Thomson Reuters Eikon database from 2011 to 2017. We excluded 195 financial firms due to their different approach in the accrual method. This study reflected on a final sample of 558 non-financial firms with 3,906 firm-year observations from 11 countries in Asia including Japan, Taiwan, Korea, China, India, Hong Kong, Singapore, Malaysia, Indonesia, Philippines, and Thailand. This article included countries within the scope of Thomson Reuters ESG database.

We split our sample size into 127 firms from controversial sectors with 889 firm-year observations and 431 firms from non-controversial sectors with 3,017 firm-year observations. We classified firms per sector, according to Thomson Reuters business classification (TRBC). We categorized these sectors into controversial and non-controversial, following the studies of Cai et al. (2012) and Aqueveque et al. (2018). Controversial sectors are typically characterized as entities with strong debate about morality and political pressures, including sinful industries such as tobacco, gambling, alcohol, and adult entertainment, as well as industries involved with emerging environmental, social, and ethical issues like defense, biotechnology,

Table 1. *Distribution of Firm-Year Observations per Sector*

Sectors	no. of observations	% of observations
<Controversial Sectors>		
Basic materials	602	15.41
Energy	154	3.94
Alcoholic Beverages and Tobacco	63	1.61
Casinos and Gaming	42	1.08
Aerospace and Defense	21	0.54
Biotechnology	7	0.18
Sub-total	889	22.76
<Non-Controversial Sectors>		
Industrials	945	24.19
Cyclical Consumer Goods & Service	791	20.25
Technology	406	10.39
Non-Cyclical Consumer Goods & Services	287	7.35
Utilities	252	6.45
Telecommunications	182	4.66
Healthcare	154	3.94
Sub-total	3017	77.24
Total Firm-year observations	3906	100

Note: This table reports sample distribution over the period of 2011–2017. Thomson Reuters Business Classification covers over 70,000 public companies from 130 countries and provides over 10 years of classification history.

energy, and basic materials (Cai et al., 2012; Aqueveque et al., 2018).

Table 1 shows that the majority of our samples from controversial sectors are composed of basic materials and energy sectors. Basic materials include chemicals, construction materials (cement), metals and mining, paper and forest products, and containers and packaging, whereas the energy sector includes coal and oil and gas industries. In addition, Table 1 shows that most of the representative sample from non-controversial sectors are from industrial and cyclical consumer goods and service sectors. The industrial sector includes industrial goods and services, industrial conglomerates and transportation, whereas cyclical consumer goods and service sector includes automobiles and parts, consumer products and services, and retailers.

CSR Ratings

We utilized environment, social, and governance (ESG) index as a proxy measure of CSR. We collected these data from S-Network FTP, an online database of standardized ESG data from Thomson Reuters. ESG composite rating is the combination of the average ratings of the three pillars and ESG controversies. The ESG controversies are composed of disputes across the 10 categories from environmental, social, and governance pillars.

Each category used in the measurement of each pillar is mentioned in Thomson Reuters ESG ratings methodology. Thomson Reuters (2018) explained that under the environmental pillar, resource use rating is composed of the capability and performance of business firms to conserve resources and improve supply chain management in an eco-efficient way. On the other hand, emission reduction rating is composed of commitment and firms' effectivity to lessen environmental emission on its production and operational processes. In addition, the innovation rating is composed of the capability of firms to lessen the costs related to environmental activities and new market opportunity creation.

Moreover, Thomson Reuters (2018) mentioned that under the social pillar, workforce rating measures the effectivity of a firm in providing a healthy and safe workplace, maintaining diversity and

equal opportunities, and learning and development opportunities for its employees towards job satisfaction. Human rights rating measures the effectivity of the firm towards basic human rights consideration. In addition, community rating covers the commitment of the company towards citizenship, public health protection, and ethics consideration. Lastly, product responsibility rating measures the capability of a company to provide quality goods and services by incorporating health and safety, integrity, and data privacy of consumers.

Thomson Reuters (2018) explained that under the governance pillar, management rating covers the effectivity and commitment of a company in implementing corporate governance best practices. On the other hand, shareholders rating reflects the effectivity of a company to equality among shareholders and the use of take-over prevention measures. In addition, the CSR strategy rating covers the discussion of business firms regarding CSR implementation and its integration of economic, social, and environmental aspects into its day-to-day decision-making processes.

Following the study of Kim et al. (2012), we constructed an aggregate CSR rating by taking an arithmetic average of the scores on the two individual dimensions, such as environmental and social pillars. We reflect on these two pillars because CSR is an organizational action based on stakeholders' expectations on social and environmental performance (Aguinis & Glavas, 2012). However, our CSR ratings exclude the controversies and disputes across the categories of environmental and social pillars due to data limitations. We also exclude corporate governance to disentangle its effect on the overall CSR computation following Kim et al. (2012). Corporate governance is perceived as a distinct construct from CSR, and its impact on financial reporting practices is widely examined in the prior literature (Kim et al., 2012).

Earnings Management Measures

The first proxy measure of earnings management is AEM. We use the residuals from the annual cross-sectional industry regression model as estimates of firm discretionary accruals following DeFond and Subramanyam (1998) and Kim et al. (2012). This model is based on the Jones model modified and developed by Dechow, Sloan, and Sweeney (1995). It is illustrated as:

$$TA_{i,t}/A_{i,t-1} = \alpha + \beta_1 (1/A_{i,t-1}) + \beta_2 (\Delta REV_{i,t} - \Delta REC_{i,t})/A_{i,t-1} + \beta_3 PPE_{i,t}/A_{i,t-1} + \beta_4 CFO_{i,t}/A_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

where residual (ε) is the discretionary accrual; TA is profitless cash flows from operations scaled by total assets at t-1; ΔREV is the change in revenue from prior to current year scaled by total assets at t-1; ΔREC is the change in trade receivables from prior to current year scaled by total assets at t-1; PPE is the book value of property, plant, and equipment at year-end scaled by total assets at t-1; and CFO is cash flows from operations scaled by total assets at t-1.

The second proxy measure of earnings management is REM. Roychowdhury (2006) developed a widely accepted model to measure REM from three indicators, namely, abnormal levels of cash flows, production costs, and discretionary expenses. These estimates are computed as the residual of each regression models. Models for each indicator estimates include:

$$CFO_{i,t}/A_{i,t-1} = \alpha^1 + \beta^1_1 (1/A_{i,t-1}) + \beta^1_2 (S_{i,t}/A_{i,t-1}) + \beta^1_3 (\Delta S_{i,t}/A_{i,t-1}) + \varepsilon^1_{i,t} \quad (2)$$

where abnormal cash flow is computed as the residual(ε^1), CFO is the cash flow from operations, A is total lagged assets, S is sales for the year, and ΔS is the change in sales from prior to the current year.

$$PRD_{i,t}/A_{i,t-1} = \alpha^2 + \beta^2_1 (1/A_{i,t-1}) + \beta^2_2 (S_{i,t}/A_{i,t-1}) + \beta^2_3 (\Delta S_{i,t}/A_{i,t-1}) + \beta^2_4 (\Delta S_{i,t-1}/A_{i,t-1}) + \varepsilon^2_{i,t} \quad (3)$$

where abnormal production cost is computed as the residual(ε^2), PRD is the cost of sales + the change in inventory from prior to the current year, A is the total lagged assets, S is sales for the year, and ΔS is the change in sales from prior to the current year.

$$EXP_{i,t}/A_{i,t-1} = \alpha^3 + \beta^3_1 (1/A_{i,t-1}) + \beta^3_2 (S_{i,t-1}/A_{i,t-1}) + \varepsilon^3_{i,t} \quad (4)$$

where the abnormal discretionary expense is computed as the residual(ε^3), EXP is the sum of research and development and advertising expenditure, A is total lagged assets, and S is sales for the year. Hence, we use the combined values of these components for our main analyses.

$$REM_{i,t} = AB\_CFO_{i,t} - AB\_PRD_{i,t} + AB\_EXP_{i,t} \quad (5)$$

where *REM* is the combined real-activities earnings management, *AB_CFO* is abnormal cash flow, *AB_PRD* is abnormal production cost, and *AB_EXP* is abnormal discretionary expense.

Control Variables

We control several variables which are known to influence and provide other plausible explanation on earnings management. We include AEM as a control variable for REM regression, and REM as a control variable for AEM regression, following the methods employed by Cohen et al. (2008) and Kim et al. (2012) to address the substitutive nature of these two earnings management methods. This study also includes corporate governance (GOV) as a control variable in our regression analysis. Bergstresser and Philippon (2006) mentioned that corporate governance and CSR are two distinct constructs widely used to explain earnings management. These two variables could be negatively associated based on the manager's motivation (Kim et al., 2012). We also control the return on assets (ROA), motivated from the explanation of Cho and Chun (2016) that firms with lower incomes may manage earnings to a greater extent in order to attract investors, as opposed to firms with higher incomes. In addition, we control market-to-book ratio (MB), motivated from the explanation of Jordaan et al. (2018) that the change in total accruals and change in MB provides a significant and positive relationship. This indicates that managers with a positive market valuation for at least two subsequent years, use total accruals to sustain their firm's valuation.

We also include leverage (LEV) as the control variable in the regression model. Kim and Park (2005) mentioned that firms with higher external financing are prone to more risk, which may lead to higher earnings management in an attempt to lower the cost of capital. We also control firm size through market capitalization (SIZE), motivated from the explanations of Chih et al. (2008) and Scholtens & Kang (2013) that larger firms are prone to greater scrutiny because these firms have more stable and predictable operations, resulting in fewer earnings management opportunities. Lastly, we include market classification (MAR) as a dummy variable. We examine the relation of CSR on earnings management by markets and find that the effect varies between firms from developed and emerging markets in Asia.

Regression Models

This study employs multivariate regression models based on Kim et al. (2012) and Jordaan et al. (2018) studies. To examine the relation of CSR on AEM, we estimate the following model:

$$AEM_{i,t} = \alpha^{AEM} + \beta^{AEM}_1 CSR_{i,t} + \beta^{AEM}_2 REM_{i,t} + \beta^{AEM}_3 GOV_{i,t} + \beta^{AEM}_4 ROA_{i,t-1} + \beta^{AEM}_5 MB_{i,t-1} + \beta^{AEM}_6 LEV_{i,t-1} + \beta^{AEM}_7 SIZE_{i,t-1} + \beta^{AEM}_8 MAR_{i,t-1} + \varepsilon^{AEM}_{i,t} \quad (6)$$

Furthermore, to examine the influence of CSR on REM, we estimate the following models:

$$REM_{i,t} = \alpha^{REM} + \beta^{REM}_1 CSR_{i,t} + \beta^{REM}_2 AEM_{i,t} + \beta^{REM}_3 GOV_{i,t} + \beta^{REM}_4 ROA_{i,t-1} + \beta^{REM}_5 MB_{i,t-1} + \beta^{REM}_6 LEV_{i,t-1} + \beta^{REM}_7 SIZE_{i,t-1} + \beta^{AEM}_8 MAR_{i,t-1} + \varepsilon^{REM}_{i,t} \quad (7)$$

where AEM is the measure of earnings management through discretionary accruals computed as the residual; REM is the measure of real-activities earnings manipulation; CSR is the measure of CSR performance based on environmental and social pillar ratings; GOV is the corporate governance pillar ratings; ROA proxies for performance calculated as profit before extraordinary items, scaled by lagged total assets; MB proxies for growth calculated as market-to-book equity ratio; LEV is long-term debt scaled by total assets; SIZE is the market capitalization; and MAR is the market classification, dummy variable to the value of 1 if developed market and 0 if emerging market.

Findings

Table 2 shows the descriptive statistics of overall and split samples from controversial and non-controversial sectors. We looked into the correlation matrix to check for strong relationships and examined if there are any relations between the variables of interest and other variables, which may cause multicollinearity in our subsequent regressions.[1] AEM shows a mean value of -7.69E-08, whereas REM shows a mean value of 1.80E-04. The data presented suggest that selected firms managed earnings less through AEM and REM. In addition, CSR has a mean value of 56.91 based on Thomson Reuters ESG database.

Table 2 shows that GOV has a mean value of 33.90, indicating that the majority of the sampled firms have

relatively poor corporate governance, consistent with Welford (2007). The mean value of ROA is 5.67, indicating that most of the firms from our sample are profitable. On average, growth opportunities proxied by MB shows 2.64, indicating that firms in this study utilized firms' assets well. In addition, it shows that leverage of sample firms has a mean value of 93.06, indicating that firms in this study are risky in reference to debt over equity. Lastly, market capitalization shows an average value of 177.65, indicating that most of the firms included in this study are large companies in terms of total values of outstanding shares.

Moreover, Table 2 presents the descriptive statistics of sample firms by sectors. The mean value of CSR for firms from controversial and non-controversial sectors are 57.68 and 56.68, respectively. The magnitude of AEM is lower for firms from controversial sectors with an average value of -2.79E-04, whereas firms from non-controversial sectors have an average value of 8.14E-05. Mean values of REM for firms from controversial sectors are lower than firms from non-controversial sectors, as shown by -8.97E-02 and 2.64E-02 average values, respectively. The mean differences between the two groups are statistically significant at (p < 0.01), indicating that firms from controversial sectors are more likely to engage in real activities manipulation than firms from non-controversial sectors.

Table 3 presents the results of regression analyses of AEM and REM for overall sample firms and by sector classifications. Overall, the sample of Asian

firms reveals that there is a positive and significant relationship between CSR and AEM at (p < 0.01). Our study shows that firms engaged in CSR activities are more likely to engage in earnings manipulation through discretionary accruals to conceal firms' actual business performance and attract the positive attention of stakeholders. It supports the conjecture that CSR firms manage their earnings more by using discretionary accruals, consistent with opportunistic effect hypothesis (H_1). Our findings suggest that managers of socially responsible firms conduct CSR activities out of the true objective of building corporate citizenship and conduct earnings management more through discretionary accruals to conceal the actual business performance, resulting in damaged stakeholders' interests.

Table 3 shows that REM is positive and significantly associated with CSR at (p < 0.05). Our study reveals that firms with active CSR participation are engaged in earnings management less by manipulating operating activities, resulting in higher accounting quality. Our evidence underpins the notion that firms' engagement in CSR activities manipulates their earnings less through real-activities earnings manipulation, consistent with constraining effect hypothesis (H_2). Firms avoid real-activities earnings management due to their adversity in future financial performance (Zang, 2012; Bozzolan et al., 2015). Hence, managers prefer to employ discretionary accrual because all accruals will be reversed in the next or future accounting period than to

Table 2. *Descriptive Statistics*

	Overall		Controversial		Non-Controversial		*p-value of difference*
	Mean	SD	Mean	SD	Mean	SD	
AEM	-7.69E-08	1.49E-02	-2.79E-04	1.32E-02	8.14E-05	1.53E-02	0.53
REM	1.80E-04	4.10E-01	-8.97E-02	4.50E-01	2.64E-02	3.94E-01	0.00 ***
CSR	56.91	16.65	57.68	16.83	56.68	16.60	0.12
GOV	33.90	13.07	34.80	12.43	33.64	13.24	0.02 **
ROA	5.67	7.28	5.76	7.69	5.64	7.16	0.68
MB	2.64	9.81	2.30	4.47	2.74	10.88	0.24
LEV	93.06	497.10	95.79	198.13	92.26	554.89	0.85
SIZE	177.65	970.05	217.62	807.11	165.96	1012.57	0.16
MAR	0.48	0.50	0.43	0.50	0.50	0.50	0.00 ***
	N= 3906		N= 889		N=3017		

*Note: *, indicates significance, two-tailed, at 10% level; **, indicates significance, two-tailed, at 5% level; ***, indicates significance, two-tailed, at 1% level.*

Table 3. *Multiple Regression Results of Earnings Management on CSR*

	Activity-based Earnings Management				*Real-activities Earnings Management*		
	Overall	Controversial	Non-Controversial		Overall	Controversial	Non-Controversial
CSR	.11	.08	.13	*CSR*	.03	–.03	.04
	(7.12) ***	(2.96) ***	(6.75) ***		(2.04) **	(–1.23)	(2.09) **
REM	.05	–.08	.06	*AEM*	–.04	–.08	.06
	(3.45) ***	(–2.37) **	(3.17) ***		(–2.55) **	(–2.37) **	(3.17) ***
GOV	–.26	–.18	–.27	*GOV*	.34	.07	–.05
	(–15.95) ***	(–6.68) ***	(–14.55) ***		(20.55) ***	(2.52)	(–2.70) ***
ROA	–.28	–.47	–.19	*ROA*	.02	.30	.31
	(–17.06) ***	(–14.49) ***	(–10.03) ***		(1.10)	(8.66) ***	(16.98) ***
MB	–.03	–.34	–.01	*MB*	.06	–.17	.05
	(–2.23) **	(–10.77) ***	(–.61)		(3.45) ***	(–5.32) ***	(3.08) ***
LEV	–.03	–.03	–.03	*LEV*	–.06	–.53	–.01
	(–2.15) **	(–.85)	(–1.68) *		(–3.74) ***	(–18.52) ***	(–.48)
SIZE	.03	.14	.01	*SIZE*	.01	.00	.01
	(2.23) **	(5.74) ***	(.82)		(.36)	(–.02)	(.43)
MAR	–.16	–.20	–.15	*MAR*	.12	.17	.09
	(–10.32) ***	(–7.05) ***	(–8.38) ***		(7.52) ***	(6.23) ***	(5.06) ***
Adj.R²	.16	.52	.12	*Adj.R²*	.11	.53	.09
N	3906	889	3017	*N*	3906	889	3017

Note: Values per columns are standardized coefficient while t-stat values are in parenthesis. *, indicates significance, two-tailed, at the 10% level; **, indicates significance, two-tailed, at the 5% level; ***, indicates significance, two-tailed, at the 1% level.

engage in REM when actual company resources are at stake. In addition, managers consider the relative cost before implementing a particular earnings management strategy (Zang, 2012).

Furthermore, Table 3 shows that, regarding firms from controversial and non-controversial sectors, CSR has a significant and positive association with AEM at ($p < 0.01$). These findings suggest that regardless of sector classifications, managers utilize earnings management through discretionary accruals. We conducted an additional calculation to further test this hypothesis. Specifically, we conducted *t*-tests to examine if the coefficients are statistically significant and different between firms from controversial and non-controversial sectors. We used t-statistics to calculate the difference between any two estimated coefficients (Lee, Yen, & Chan, 2013). We calculated t-statistics based on this equation: $t = (\beta_A - \beta_B) / \sqrt{\sigma_A^2 / n_A - \sigma_B^2 / n_B}$, where A is the controversial sectors, B is the non-controversial sectors, β is the beta coefficient, σ^2 is the variance, and *n* is the number of observations.

Table 3 shows that in relation to AEM, the estimated coefficients of firms from controversial and non-controversial sectors are 0.08 and 0.13, respectively. These findings suggest that AEM of firms from controversial sectors is 8% for every CSR rating whereas 13% is of firms from non-controversial sectors. The corresponding t-statistic is 71578.42, suggesting that the coefficient under firms from controversial sectors is higher than firms from non-controversial sectors. Hence, our result reveals that firms from controversial sectors with high-CSR engagements manipulate earnings through discretionary accruals more than firms from non-controversial sectors, consistent with H3.

Our findings suggest that the objective of the implementation of these sectors of CSR programs is to reduce negative impact and unfavorable public perception and not to include socially responsible programs on its core values (Jo & Na, 2012). In addition, CSR implementation of managers from controversial sectors can be associated to unethical

motives of enhancing their personal agenda from the benefits of reputation building as social citizens at the cost of shareholders wealth (Barnea & Rubin, 2010). Hence, we conjecture that managers of firms from controversial sectors utilize CSR as a cover-up strategy of its business activities and legitimate business performance based on its low financial information quality.

On the other hand, Table 3 shows that firms from non-controversial sectors reveal that CSR has a significant and positive association with REM at ($p < 0.05$). It also shows a negative but insignificant association for firms from controversial sectors. We conjecture that managers of firms from non-controversial sectors consider the adhered cost and long-term impact of implementing real-activities earnings management due to its inconsistency in optimal operating decisions, parallel to the notion of Zang (2012) and consistent to H_4, which states that firms from non-controversial sectors with high-CSR ratings are engaged in REM less than firms from controversial sectors. The insignificant impact of CSR on REM can be explained from the managers' amorality in controversial sectors (Cai et al., 2012). We conjecture that these managers are not interested in private reputation building nor on value enhancement issues but simply imitate the recent trend on CSR engagement of other sectors.

Conclusions

CSR has increasing attention in the Asian region. In this article, we investigate the impact of CSR on earnings management through managerial discretion and operating decisions in controversial and non-controversial sectors. This study affirms the trade-off between AEM and REM regarding the impact of CSR ratings on earnings management. Managers of socially responsible firms conduct CSR activities out of the true objective of building corporate citizenship and conceal the actual business performance through discretionary accruals, resulting in damaged stakeholders' interests. However, managers of socially responsible firms avoid the inconsistency in the optimal operating decision due to adhered cost and long-term impact on the company and stakeholders.

Moreover, our findings reveal that managers from controversial sectors in Asia are more aggressive to utilize socially responsible programs to manage earnings through discretionary accruals than non-

controversial sectors. CSR implementation of managers from controversial sectors can be associated with unethical motives in enhancing their personal agenda from the benefits of reputation building as social citizens at the cost of shareholder wealth. We conjecture that managers of firms from controversial sectors utilize CSR to conceal their unethical business activities and AEM. Lastly, we find that firms from non-controversial sectors are conservative in REM, but firms from controversial sectors reveal that CSR has an insignificant effect on REM. Our findings suggest that managers from controversial sectors are amoral, neither interested in private reputation building nor on value enhancement issues, but simply consider the recent trend on CSR engagement of other sectors (Cai et al., 2012).

This study infers several theoretical and practical implications of our findings. First, our findings contribute to CSR literature by providing empirical evidence on the impact of firms' CSR practices on earnings management through managerial discretion and real-activities strategies in Asia. It accords in constructing a map of the literature of CSR and earnings management, which can be used as a basis in comparing Asia to other regions in reference to agency-based predictions and stakeholder's perspective of management practices. Second, we provide sector-specific analysis of CSR and earnings management between controversial and non-controversial sectors. The cognizance of the phenomenon from these sectors plays an essential role in sustainability if earnings manipulation issues are addressed, despite its emerging ethical and environmental issues on business operation.

Furthermore, stakeholders, investors, and analysts may reflect from study findings and recognize the true motives of business firms with high CSR engagement as an expression of ethical investment and a reflection of quality financial reporting. Recent CSR data shows that Asian firms are implementing CSR programs regardless of sector classifications. However, these programs are utilized to cover up earnings manipulation practices aside from concealing business activities that are detrimental to the environment, human beings, and society (mostly firms from controversial sectors). Lastly, our study findings can help policy-making institutions and regulatory committee on being cautious about this opportunistic behavior, and enhance monitoring technique to enforce social compliance, especially for firms from controversial sectors. We suggest a

revisit and reformulation of managerial benefit plans and frameworks for rewards and incentives associated with firms' socially responsible programs. Guidelines shall be formulated and introduced to uphold the real motivation of socially responsible programs, such as addressing ethical and moral issues and building a strong and relevant citizenship culture through shared value without deceiving stakeholders.

This study contemplated on ESG data, which is widely used data on CSR research from accounting, economics, and finance fields as a proxy of CSR. However, this data also faces limitations like other data from other sustainability databases (e.g., measurement and indexing issues). We only considered the arithmetic average of environment and social ratings of CSR and disregarded the controversies per dimension due to limited information on the issues adhered to the firm's operation. We acknowledge that there might be another procedure in measuring the estimates of CSR ratings with ESG data, due to practical belief in quality standard.

Furthermore, this article only considered 11 countries to represent Asia due to the lack of CSR information. The findings would be more comprehensive if firms from other countries in Asia were included in the study samples. We recognize that there is diversity in CSR implementation relevant to the culture and identity of each country. Hence, we encourage future studies to reflect on the phenomenon and consider country differences. We suggest that future researches examine other boundary conditions and address issues regarding data limitations in order to provide a thorough cognizance of the complexities in the phenomenon.

NOTE

1 Correlation matrix reveals that AEM is negatively correlated to REM, indicates that there is a trade-off between earnings management strategy. It is negatively correlated to GOV, ROA, MB, and MAR. In addition, AEM is positively correlated to CSR and SIZE. Furthermore, the correlation matrix shows that REM is positively correlated to ROA, MB, and MAR, whereas it is negatively correlated to LEV. These results are not shown to preserve space but are available from the authors upon request.

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