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Relationship between Corporate Social Responsibility and Earnings Management: A Systematic Review of Measurement Methods

Mashiur Rahman, Sarah Chowdhury

Assistant Professor, Ahsanullah University of Science and Technology, Dhaka, Bangladesh

ABSTRACT

The relationship between corporate social responsibility (CSR) and earnings management (EM) is an extensive empirical study. However, the evidence on the nature of the relationship is unclear. A commonly defined reason for divergent and contradictory results is measurement issues. The purpose of this article is to evaluate alternative operation and measurement methods applied to the CSR and EM concepts in the empirical literature on CSR-EM relationships. Our systematized appraisal was conducted over the last nine years from 2008 to 2016. This study has come to different observations. First, CSR measurement methods include sustainability indexes, content analyzes and single-dimensional measurements, while EM measurement methods include discretionary accruals, discretionary loan loss provisions, real earnings management, abnormal earnings management, earnings persistence and earnings smoothing. In addition to the unique drawbacks of the approach, the subjectivity of the researcher and the selection anomalies that may influence the nature of the CSR-EM relationships identified in the empirical literature. Finally, possible ways of overcoming these disadvantages are recommended.

KEYWORDS: *Corporate social responsibility, Earnings management, Systematic Review*

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1. INTRODUCTION

Since the inception of corporate social responsibility (CSR) in the 1950s, it has been vigorously debated whether corporations should be involved in CSR undertakings and whether they should be required to generate reports on such initiatives, also known as sustainability reports (Rashid, 2017). Sustainability reports focus on non-financial information. However, corporations still emphasize on financial information based on financial statements that notify managers and shareholders of the fiscal and economic position of a business (Muttakin, et al., 2015), which vital to decision making and overall stakeholder well-being. Nonetheless, financial reports have shortcomings in that they do not deliver information about specific queries that are currently generating abundant concern, especially the communal and environmental aspects of corporate undertakings. Corporations incorporate in their annual report or similar statements sustainability issues or other governance topics to overcome these constraints, for example, intellectual resources, business governance, and Corporate Social Responsibility. Besides, the reporting of trustworthy information regarding financial earnings is vital for CSR undertakings as it provides external users with a foundation of faith and assurance concerning an organisation's entitlements and actions. CSR is associated with moral and ethical matters regarding corporate behaviour and policymaking above and beyond what is compulsory (Satter, 2017). Therefore, it is inevitable that firms that perform CSR actions will deliver clear and trustworthy economic evidence.

On the other hand, in figure earnings in terms of maintaining GAAP (generally accepted accounting principles), executives can apply some discretion, causing stated revenues to appear superior to the real scenario. Indeed, Isabel, et al. (2017) defined Earnings Management (EM) as executives exercising their discretion over accounting numbers. Moreover, this interference in financial statement analysis and reporting procedures may be performed to either stimulate contractual results that depend on stated accounting figures or deceive stakeholders about the actual commercial performance of a business. Similarly, previous research on EM has acknowledged three sets of incentives that motivate this practice, which are contractual engagements, capital markets, and regulatory incentives (Houqe, et al., 2015). However, uncertain of the future of individual payback, sensible supervisors should not become involved in EM.

The accounting scandals and consequently mega corporate collapses experienced especially in recent years, and in particular the collapse of Fuji Xerox (Japan, 2017), Ciftlik Bank (Turkey, 2018), Wells Fargo (USA, 2018) and Samsung

BioLogics (South Korea, 2018), show that the relevant legislation, regulations, arrangements, social values and accounting ethics are not taken very seriously and still some problems do exist (Kizil et al., 2018). Accounting scandals prevent financial information contained in financial statements from being reliable, understandable and comparable. Thus, frauds realized on financial statements play an important role in accounting scandals. This is especially the case for frauds, which take place at enterprises, mainly due to ineffective implementation of corporate governance and internal controls. Besides, one of the causes of these collapses has been attributed to ethical breakdowns. While these incidents have given rise to the imposition of regulations requiring companies to increase accountability and restore public trust, there has been a parallel development of sustainable regulations that require companies to provide additional information to relevant stakeholders. Similarly, previous Bangladeshi study results suggest that business group-affiliated firms manage earnings to a greater extent through manipulating discretionary accruals, than their standalone counterparts (Muttakin et al., 2017). Thus the above points of view indicated that in environments without strong investor protection, complex ownership structures of business groups may create opportunities for expropriating minority shareholders and masking this practice through earnings management.

Furthermore, prior studies also advocate that to camouflage professional opportunistic motives (under opportunism hypothesis) managers may use CSR as a strategic weapon. Managers may escape inspection from stakeholders through CSR undertakings that protect their job. Moreover, a healthy relationship with stakeholders can be used as a defensive tool against aggressive buyouts. Hence, managers who are involved in earnings manipulations may be motivated by extensive CSR activities to shed their entrenchment mechanisms.

Conversely, it is evident from prior research that greater CSR disclosure in firms does not provide short-term benefits in terms of aggressive earning distortion to achieve targets and maintain a smooth understanding with stakeholders, such as employees and shareholders that supports the long-term perspective hypothesis. Thus, socially responsible firms also act in an ethical manner when disclosing their financial information. From this point of view, empirical findings reveal that organisations that are more dedicated to CSR reports or manners deliver more general monetary disclosures and are less involved in earnings manipulation (Rezaee, et al., 2019). Thus, empirical results concerning the positive or negative stimulus of CSRR on EM remain inconclusive.

Given differences in outcomes and the significance of this relationship for scholastics and market members, further investigation is required. Although proof for financial disclosure excellence and quality financial audits exist in developed economies, insufficient reviews have been done in developing nations where corporate governance and CSR practices are still developing. Thus, it is essential to investigate whether CSR related disclosures by firms are based on an original plan (long-term value maximization) or are only intended to deceive stakeholders (opportunistic viewpoint).

2. CORPORATE SOCIAL RESPONSIBILITY

A radical alteration has been perceived in the association between business and civilization in the last two decades, in which the increased globalization of trade, development of policy, importance of stakeholder relationships, and expansion of corporate reputation management have been significant factors. Moreover, CSR is defined as "the obligation of an organization to utilize its resources in ways to value society, through dedicated participation as a member of civilisation, considering the society at large and improving wellbeing of society as a whole and independent of direct gains of the corporation" (Kok, et al., 2001). Furthermore, CSR is defined as an awareness of stakeholder, ethical, social, legal, and environmental business potentials (Moratis et al., 2018).

3. EARNINGS MANAGEMENT

Earnings management indicates the manipulation of a company's financial position or earnings by managers to obscure the financial health of an organization. Velte (2019) defined EM as the modification of an organizations actual monetary position by management/managers to either delude market participants or stimulate predetermined consequences. In other arguments, earnings management is the manipulation of described earnings so that they do not correctly signify financial position at each stage (Soedarmono et al., 2017). Ultimately, the definition of EM settled on the argument that executive goal is a precondition of EM; however, whether the purpose is unprincipled in feature is not completely distinct.

4. EMPIRICAL EVIDENCE ON THE CSR-EM RELATIONSHIP

A couple of researches (Gargouri et al., 2010; Grougioua et al., 2014; Martínez-Ferrero, Banerjee, and García-Sánchez, 2014) that investigate the relationship between quality of financial reporting and CSR mainly address the opportunistic application of CSR within the scope of agency theoretical background. Chahine et al. (2019) examines that businesses reporting small earnings intensify efforts to achieve earnings targets through the strategic practice of discretionary philanthropy. This study is aimed at exploring the relationship between CSR reporting and EM. Thus, this study begins with the literature review that is focused on the affiliation concerning CSR practices, CSR disclosure, and EM.

Moreover, participating and disclosing CSR actions decreases the external gravity on organizations for being more communally responsible (Alsaadi et al., 2013). Nonetheless, organizations not only lose authorization and sustenance from diverse stakeholders', but also that may harm corporation's survival chances or hamper to control business operation for failing to take part in CSR initiatives (Sial et al., 2018). Notwithstanding pursuit of the interests of the organization's stakeholders, it has been claimed that executives may participate in CSR actions to fulfil their interests (Chahine et al., 2019) or for the tenacity of camouflaging the consequences of misconduct in the business's undertakings. It has also been argued that to accomplish their careers goals, CSR may be utilized as a window-dressing mechanism by managers (Muttakin et al., 2015).

This study found few studies examining the relation between CSR disclosure and earnings management and the results are mixed. Patten and Trompeter (2003) discuss the relationship between the level of pre-event environmental disclosure and the extent of earnings management in response to a regulatory threat by using a sample of 40 US chemical firms that exhibited significant negative discretionary accruals and environmental disclosures. These results are consistent with the argument that corporate management believes environmental disclosure is a useful tool for reducing exposure to potential regulatory costs and that decisions to manipulate earnings are tied to a broader corporate strategy for dealing with political pressures (Patten et al., 2003). However, Muttakin et al. (2015) explore that managers of Bangladeshi non-banking firms involve in earnings manipulation when they disclose more CSR information, while the existence of influential stakeholders constrains EM. Moreover, Yip et al. (2011) find evidence of a substantial negative (complimentary) link in the gas and oil sector whereas the food sector values a positive (substitutive) relationship and concludes that this relationship is predisposed by political setting rather than moral bias.

On the other hand, transparent financial reporting directs that information is more relevant to the stakeholders to make investment decisions (Gras-Gil et al., 2016). In this regard, CSR initiatives are associated with quality earnings and the primary intention of the organization is to meet the demands of the diverse stakeholders. The previous study claims that socially accountable businesses are focused on developing enduring affiliations with stakeholders (longstanding viewpoint) rather than on increasing existing profits for maximizing short-term benefits (Chih et al., 2008). The business has to purposefully apply its consideration to fulfil the demands of the stakeholders as the stakeholders' control possessions that are essential for the existence and continued success of the organization (Choi et al., 2013). In line with this opinion, preceding literature reveals that organizations that are involved less in earnings management are more devoted to CSR commitment and its disclosure.

Additionally, several incentives prevent CSR oriented firms from becoming involved in questionable accounting practices, especially economic performance, and reputation apprehensions. Previous studies found that CSR is able to deliver an optimistic indication concerning the reputation of the organization and if a firm values its status, it can constrain the business and its executives from becoming related to publicly insupportable undertakings (Carey et al., 2017). Consequently, executives may apply CSR to improve the company's reputation and sustainable economic growth without adopting problematic discretionary choices that cause probable impairment to its reputation, such as an adverse relationship between earnings management and CSR (Moser and Martin, 2012). For instance, Kim et al. (2012) examine whether publicly accountable businesses perform differently in parallel to other companies in their financial reporting as observed by using a sample of US firms. Following the legitimacy theory, they claim that reputation and moral elements work as antecedents for executives to generate high-grade financial records.

5. METHODOLOGY

5.1. Procedure of Systematic Review

Denyer and Tranfield (2009, p. 671) stated that a "systematic review is a specific methodology that locates existing studies, selects and evaluates contributions, analysis and synthesises data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known". Simultaneously, inconclusive findings and theoretical gaps can be recognised through systematic review that provide guidelines for future research (Denyer et al., 2009). In this study, we have applied a systematic review according to the procedures recommended by Kitchenham et al. (2007) and Chauhan, er al. (2016).

5.2. Selection of database and search criteria

To confirm effective outcomes by covering a wide range of research, a comprehensive database analysis was performed. We selected peer-reviewed journals from internationally recognized databases. The systematic review was conducted through using keywords derived from previous studies to expansively cover the potential research area (Rahman et al., 2018). The following keywords were selected to cover the research field: "Corporate social responsibility report*", "sustainability report*", "GRI report*".

5.3. Inclusion Decision on the basis of title and keywords

In this stage, we discarded the unsuitable research papers according to the heading and keywords that were selected through search procedure. We continued our investigation in mid-2016 to capture all relevant papers in nine (09) investigated publication years from 2008 to 2016.

5.4. Inclusion decision based on Abstract and Conclusion

In this step, by thorough analysis of abstract and conclusion of the papers, the researchers excluded the papers that were found irrelevant for this study. Subsequently, we selected a total of 40 research papers for the final analysis and synthesis.

5.5. Final Selection

After reading the full text of the papers, we then screened them as per the following criteria:

A. Does the paper address CSRR in the context of Banking Sector?
B. Which determinants influencing the disclosures of CSRR are addressed?
C. Does the paper clearly state its research objective?

Subsequently, on the basis of above benchmarks, we finally selected 19 research papers that could help to fulfil the purposes of this systematic review.

5.6. Data Extraction and Synthesis

In this stage, data were extracted from the nominated research papers and thorough crosschecking ensures that each research paper was investigated consistently and the discrepancies mutually resolved (Rahman et al., 2018).

6. REVIEW OF APPROACHES FOR MEASURING CSR

6.1. Global Indices and Guidelines

6.1.1. Global Reporting Initiatives(GRI)

Based on the concept of the triple-bottom-line, GRI was established and circulated the initial draft of GRI Sustainability Reporting Guidelines in 1999. Then GRI was going to launch GRI G3, which was the third generation of sustainability reporting guidelines, followed by G3.1

guideline, which are an updated version of G3 along with improvements regarding human rights, gender, and community presentation. In May 2013, GRI released its fourth generation of its guidelines, GRI G4. This GRI-G4 guidelines, additionally incorporates sector supplements guide diverse industries such as the financial sector and real estate industry (GRI, 2015).

6.1.2. UN Global Compact

"The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption" (UN Global Compact, 2010). It is the biggest sustainability group concerned with corporations with more than 12,300 participants, of which 9,269 are companies. Generally, the guidelines do not have any noteworthy necessities as its objective is to cause affiliates to act more sustainably.

6.1.3. Other Reputation Indices

The most common way to measure sustainability is through a reputation indicator compiled by a professional rating agency. The main indexes include the MSC KLD 400 Social Index, Fortune Magazine Reputation Index, Dow Jones Sustainability Index and Vigeo Index. In addition to these important indexes, there are some country-specific indexes, such as the CFIE Index-French Company Information Centre for French Companies, the Respect Index for Polish Companies, and the SR Index for Croatian Companies.

6.2. Content Analysis

The second common way of measuring SR is content analysis of corporate communication. Content analysis is a technique that converts written text into numerical code and creates several groups based on designated criteria. This method assumes that the rate of recurrence is a signal of the topic substance's importance (Muttakin et al., 2015).

6.3. One-Dimensional Measures

One-dimensional construction focuses on the SR dimension, such as environmental management or charity. The main feature of the one-dimensional measure is data access (which reduces data collection) and comparability of companies. The use of one-dimensional structures is a problem in theory, because the concept of sustainability is clearly multi-dimensional (Carroll, 1979).

Table1:Advantages and Disadvantages of CSR measurement approaches

Measurement approach	Advantages	Drawbacks
Indices	Data availability & comparability, multidimensionality recognised	Non-scientific, limited firm coverage (geography, size, industry)
Content analysis	Flexibility for researcher	Researcher subjectivity, data non-disclosure, impressions management
	Flexibility for researcher	Researcher subjectivity, measurement error, non-response
One-dimensional measures for EM	Data availability & comparability	Theoretical invalidity

Source: *Adapted from Rahman and Chowdhury (2019)*

7. REVIEW OF APPROACHES FOR MEASURING EARNINGS MANAGEMENT

7.1. Discretionary Accruals

There are a number of proxies available to measure earnings quality (see, for example Muttakin et al., 2015; Wang, 2006). We use the level of discretionary accruals (absolute value) as our proxy of earnings quality. This approach involves deducting the cash flow from operations obtained from the statement of cash flows from the amount of net income (before extraordinary items) from the income statement. Under this model, the level of discretionary accruals for a particular firm is calculated as the difference between the firm's total accruals and its non-discretionary accruals (NDAC), as estimated by the following equation:

$$NDAC_{t} = \beta_1 (1 / (TA_{t-1}) + \beta_2 (\Delta REV - \Delta AR_{t} / TA_{t-1}) + \beta_3 (PPE_{t} / TA_{t-1}) + \varepsilon_{t}$$

Where, $NDAC_{t}$ = non-discretionary accruals in year t;
TA_{t-1} = total assets in year t-1;
REV_{t} = change in revenue of firm i in year t;
AR_{t} = change of accounts receivable of firm i in year t; and
PPE_{t} = property plant and equipment of firm i in year t.

7.2. Discretionary Loan Loss Provisions

The other proxy of EM employed in this study is discretionary loan loss provisions, estimated by adopting the procedure of Taktak and Mbarki, (2014), which is strongly motivated by Cornett et al. (2009). It comprises three phases.

Phase 1: Assessment of the regression's parameters

$$LLP_{it} / TC_{it-1} = \beta_0 + \beta_1 NPL_{it} / TC_{it-1} + \beta_2 LLA_{it-1} / TC_{it-1} + \beta_3 COLLT_{it} / TC_{it-1} + ULLP_{it}$$

Phase 2: Valuation of the non-discretionary element of loan loss provisions

$$LLPND_{it} / TC_{it-1} = \beta_0 + \beta_1 NPL_{it} / TC_{it-1} + \beta_2 LLA_{it-1} / TC_{it-1} + \beta_3 COLL_{it} / TC_{it-1}$$

Phase 3: Valuation of the discretionary component of loan loss provisions

$$LLPD_{it} = LLP_{it} - LLPND_{it}$$

In the final phase, this study computes the discretionary part of loan loss provisions from the difference between LLPs and LLPND which are computed in the first phrase and second phrase, respectively:
where LLP is the loan loss provisions of bank i at date t; TC $_{it-1}$, the total credit of bank i at time t-1; NPL $_{it}$ is the Non-performing loan of bank i at time t; LLA $_{it-1}$ the loan loss allowance of bank i at date t-1; COLLT it the total collaterals received by bank i at date t. All model variables are scaled by total credit (TC_{it-1}) to escape heteroscedasticity problem; ULLP $_{it}$, the error term of the model signifying the discretionary part of LLP of bank i in the period.

7.3. Earnings Smoothing

The second earnings smoothing measure (EM2) focuses on the correlation between the change in accounting accruals and the change in operating cash flows (Dechow et al., 1995; Chih et al., 2008). The magnitude of the correlation between the change in accounting accruals and the change in operating cash flows can reflect the smoothing of the reported earnings. Thus, we compute the second indicator of earnings smoothing as

$$\text{Earnings-smoothing} = 1 - \text{Spearman}\ (\Delta \text{Accruals}_{it} / TA_{it-1};\ \Delta OCF_{it} / TA_{it-1})$$

where, Spearman is the Spearman rank correlation coefficient. The way in which we calculate EM implies that a higher (lower) extent of earning smoothing represents a higher (lower) extent of earnings management for the firm. From Equation (3) it follows that EM2 lies within the range [0, 2].

7.4. Earnings Aggressiveness

Next to these two indicators of earnings smoothing, we investigate earnings aggressiveness. Earnings aggressiveness in particular relates to the conduct of managers who use their reporting discretion to misstate the firm's actual performance (Bhattacharya et al., 2003). We measure earnings aggressiveness of firm i at time t as the accruals divided by lagged of total assets (TA_{it-1})

$$\text{Earnings aggressiveness} = \text{Accruals}_{it} / TA_{it-1}$$

A higher (lower) extent of earning aggressiveness reflects a higher (lower)extent of earnings management for the firm. EM can both be a positive and a negative number.

7.5. Real Earnings Management

As in Roychowdhury (2006) and Cohen et al. (2008), we use the abnormal levels of cash flow from operation (R_CFO), the abnormal level of production costs (R_PROD), and the abnormal level of discretionary expenses (R_DEXP) to capture the extent of real earnings management activity. Following the model developed by Dechow et al. (1995), as implemented in Roychowdhury (2006), we express normal cash flow from operations as a linear function of sales and changes in sales in the current period.

$$CFO_{it} / A_{it-1} = \alpha_0 + \alpha_1 1/A_{it-1} + \alpha_2 S_{it}/A_{it-1} + \alpha 3\ \Delta S_{it} / A_{it-1} + \varepsilon_{it}$$

where CFO is operating cash flow and it is expressed as a linear function of sales (S) and the change in sales (ΔS). For every firm-year, abnormal cash flow from operations (R_CFO) is the actual CFO minus the normal level of CFO calculated using the estimated coefficient from Eq.

8. DISCUSSION AND CONCLUSION

The impact of corporate social responsibility on EM is a major concern for managers. Despite extensive empirical research on the nature of these relationships, the empirical literature does not provide conclusive evidence. The focus of this research is to analyze and evaluate empirical research recommendations on the relationship between CSR-EM in the literature, and it can contribute to many empirical conclusions in the literature. Our literature review identified multiple approaches to CSR and EM and identified their advantages and disadvantages. Table 1 summarizes the main advantages and disadvantages of the methods identified in this study. As shown in Table 1, there is no ideal CSR or EM scale. However, as CSR or EM has a long history and is largely unified, measurement issues are more important for CSR, which has not yet achieved much consistency.

The first common problem is subjectivity to researchers. When using a reputation index or unilateral aspect in a statistical model, CSR-EM can be used to analyze the results and may affect the results of the research relationship. This is because researchers obtained the model, the variables in the model, and the statistical tests used to analyze relationships, so that they could apply hypotheses. Even if SR-related data is obtained from a reliable archive source, wrong conclusions can be drawn.

Fortunately, there is a solution. One possible solution to the researchers' self-issues is to standardize CSR reports. Forty years ago, Ramanathan (1976) requested the use of corporate social accounting to provide regular information about the company's social performance, but to this day it still does not meet the acceptance criteria. However, there are some standard procedures, such as the Global Reporting Initiative (GRI), the responsibility standard responsible for AA1000 certification, the United Nations Global Progressive Communication (COP), and ISO 26000.

Besides, a review of the operating and measurement methods of the CSR concept illustrates that all methods used in empirical literature have weaknesses that may affect the relationship between the CSR and the EM that was discovered. It became clear. The two problems inherent in most, if not all, of the methods are self-bias and investigator selection. The potential solution to the first problem is alleged to be the standardization of CSR reports, and the possible solution to the second problem is the mandatory disclosure of CSR information. Not only are standardization and disclosure useful in an effective CSR-EM Relationship Test, but also beneficial in making economic decisions for many stakeholders.

In addition, the results show a slight increase in the company's accruals to the average corporate social responsibility ratio. This may indicate a non-linear relationship (possibly a secondary relationship) between corporate social responsibility and profit management. Arguments from various theories may support this idea. Therefore, future research may consider this problem as an interesting area of research. Like all studies, we are not without limitations. First, corporate social responsibility is measured by a proxy, and while we believe it is reliable and accurate, it may not cover the true core features. Moreover, data from public and corporate information and possibly this can introduce a selection bias. Thus, results should be interpreted with caution and further research could use different proxies for CSR. Second, the use of an instrumental variable approach can only mitigate concerns about endogeneity without providing a definitive solution since the identification of appropriate instruments relies on strong assumptions that might not hold. Third, the trade-off between AEM and REM is not observable and we measure it using a proxy that is likely to introduce noise in the analysis.

In summary, we conclude that corporate social responsibility plays an important role in the regulation of earnings management. To some extent, this role is limited by the legal system. Consequently, more active efforts to increase corporate social responsibility and protect investors can reduce earnings management and improve the business environment and socio-economic development.

Table2: Summary of the key literature relating to CSR Reporting, earnings management studies

Author(s)	Sample	Country	CSR and earnings management/ Dependent variable (Proxy)	CSR and earnings management/ Independent variable	Results (Relationship)
Gras-Gil, Manzano, and Fernández (2016)	panel data methodology Period: 2005 and 2012	Spanish	EM= Absolute value of discretionary accruals	CSR= MERCO index	Negative
Martinez-Ferrero, Alvarez, and Sa´nchez (2015)	1960 companies ; period 2002 to 2010	International 26 Countries	Total discretionary accruals	CSR= EIRIS database	Reverse bidirectional connection between CSR and EM
Scholtens and Kang (2013)	139 firms in ten countries	Asian Countries	➢ Earnings smoothing ➢ earnings aggressiveness	CSR= Asian Sustainability Rating (ASR) report	Negative influence of CSR on EM
Bozzolana, Fabrizib, Mallinc, and Michelond (2015)	5,863 firm-year Of 1,141 firms, period 2003–2009	International; 24 dissimilar nations	REM=Real EM; AEM= Accrual EM	CSR= EIRIS database	CSR-firms are relinquish REM (-) than AEM (+)
Cho and Chun (2015)	1432 firm-year during 2005–2010,	Korea	REM=Real EM	CSR= KEJI (Korea Economic Justice Institute) index	Negative.
Chih, Shen Kang (2008)	➢ 1,653 businesses ➢ 46 Countries ➢ 1993–2002 period.	International 46 countries	Earnings smoothing, aggressiveness, and earnings losses and decreases escaping	CSR= FTSE4Good Index	Results of Earnings smoothing (-), aggressiveness, (-) and earnings losses and decreases (+)
Kim, Park and Wier (2012)	➢ 28,741 firm-year 1991 to 2009	International	Discretionary Accruals; REM	CSP= Kinder, Lyndenberg and Domini (KLD) (KLD 2006).	Negative
Hong and Andersen (2011)	26,589 firm-years ; period 1995- 2005	USA	Discretionary Accruals; REM	CSR = Kinder, Lyndenberg and Domini (KLD) (KLD 2006).	Negative
Gargouri, Shabou and Francoeur (2010)	109 companies period 2004 to 2005	Canada	discretionary accruals	CSP = MJRA-CSID	Positive
Grougioua, Leventisb , Dedoulisd, and Ansahe (2014)	116 commercial banks listed; period 2003–2007	USA	discretionary LLP; discretionary RSGL	CSR = Kinder, Lyndenberg and Domini (KLD)	Positive

Choi, Lee, and Park (2013)	2,042 firm-year ; period 2002 - 2008	Korea	CSR= KEJI (Korea Economic Justice Institute) index	Total worth of discretionary accruals	negatively
Prior, Surroca and Tribó (2008)	593 firms; period 2002 - 2004	Multinational 26 countries	CSR = Kinder, Lyndenberg and Domini (KLD)	Discretionary accruals (DA)	Positive
Anderson, Hyun and Warsame, (2014)	firm-level data (1992-2009)	USA	discretionary accruals (modified Jones model)	CSR ratings from ESG STATS4 by MSCI ESG.	CSR had a positive influence on EM in the pre-SOX period but CSR had no impact on EM post-Sox, consistent with opportunistic use of CSR pre-SOX
Ibrahim, Darus, Yusoff,and Muhamad (2015)	16 companies; period 2011-2013	Malaysia	Modified Jones Model	Annual report; stand-alone reports and GRI guidelines	Negative
Sun, Salama, Hussainey and Habbash (2010)	245 non-financial firms ; period 2007	UK	discretionary accruals	Environmental reporting; Financial Times and the London Stock Exchange and (FTSE) All-share Index	Insignificant
Yip (2011)	80 firms out of food companies and 30 firms are oil and gas sector	USA	discretionary accruals	CSR reports	Negative connection in the oil and gas sector Whereas a positive affiliation in the food sector.
Alsaadi, Jaafar and Ebrahim (2013)	4085 firm-year observations for the period of 2003-2011	Europe	discretionary accruals using the crosssectional Jones (1991) model	CSR= ASSET4's Environmental pillar and Social pillar	Positive association between CSR and financial reporting quality and also treasure that CSR firms that are not Shariah-compliant are less likely to manage earnings through accruals
Fan and Dwyer (2013)	1671 companies and accordingly 5013 observations from 2007 to 2009	USA	discretionary accruals	CSR= KLD database	Insignificant
Litt, Sharma and Sharma (2013)	years 2004-2006	International	absolute and income-increasing total discretionary accruals	CSR= KLD database	Firms practising environmental responsibility report better financial Performance, and adverse connection with EM.

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