

Can doing good lead to doing poorly? Firm value implications of CSR in the face of CSI

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Received: 12 January 2016 / Accepted: 30 November 2016 / Published online: 30 March 2017
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Abstract Corporate social responsibility (CSR) activities enhance firm value via strengthened stakeholder relationships. However, many firms are also involved in corporate social irresponsibility (CSI), which could lead stakeholders to judge CSR actions as insincere, subsequently damaging firm value. This study examines the pivotal role of CSI for CSR's firm value effects. As an initial finding, the results indicate that CSR's positive firm value effect is significantly attenuated by the presence of CSI. Offering a more fine-grained analysis, the authors elaborate on the effectiveness of CSR that relates to the same (SD-CSR) or other domains (OD-CSR) as CSI. All else equal, the results indicate that only OD-CSR enhances firm value. Depending upon the CSI context, however, SD-CSR destroys or benefits firm value and OD-CSR is more or less beneficial. By adding new aspects to the discussion about how to align doing good with doing well, the results speak to both theorists and practitioners.

Keywords Corporate social responsibility · Corporate social irresponsibility · Social responsibility dilemma · Firm value · Instrumental stakeholder theory

Neil Morgan served as Area Editor for this article.

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Introduction

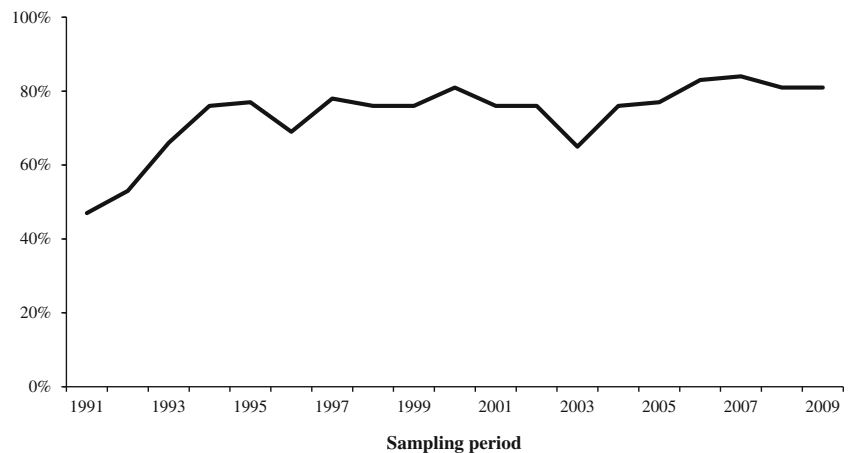
Corporate social responsibility (CSR)—firm actions that improve the well-being of stakeholders or society at large (Korschun et al. 2014; Kotler and Lee 2005)—has become a substantial firm investment. On a positive trajectory, CSR already stands among the top three priorities for half of the Fortune Global 500 companies, with \$20 billion spent for CSR activities yearly (Economic Policy Group 2015; McKinsey & Company 2014). These facts align well with the observation that CSR can enhance firm value (Accenture 2010; Luo and Bhattacharya 2006).

As Fig. 1 shows, however, corporate social irresponsibility (CSI)—firm actions that hurt the well-being of stakeholders or society at large (Kang et al. 2016; Strike et al. 2006)—occurs regularly in the majority of firms that engage in CSR. Alarming, in the presence of CSI, stakeholders may interpret CSR activities as insincere (Yoon et al. 2006), creating the possibility of damage to firm value (Margolis and Walsh 2003).

Indeed, the potential for a negative interaction between CSR and CSI is a matter of heated debate among practitioners because it could create a social responsibility dilemma: when CSI occurs, both refraining from CSR and engaging in CSR may be undesirable options with respect to their firm value impact. Thus, solving the dilemma is a prerequisite for making unambiguous predictions on the financial implications of CSR efforts.

Although CSR topics continue to gain momentum in marketing research (Habel et al. 2016; Hult 2011; Lacey et al. 2015), the questions of how and when CSR efforts affect firm value in the context of CSI represent a major research gap. Researchers have called for capturing CSR and CSI as distinct concepts, as opposed to constructing an overall measure that commingles the two (Mattingly and Berman 2006). Recent studies underline these calls by showing that CSI's negative effect on firm performance may exceed CSR's positive effect

Fig. 1 Share of all firms that engage in CSR and face CSI
 Notes: The sample contains all firm observations from the Kinder, Lydenberg, and Domini database used for Study 1 ($N = 17,972$). Specifically, the sample contains firm observations with CSI and without CSI



(Jayachandran et al. 2013) and that both affect firm value via different mechanisms (Kang et al. 2016). Furthermore, prior research has called for examining different CSR engagements (Basu and Palazzo 2008; Wang et al. 2016). In doing so, most studies have used a pragmatic CSR differentiation by assigning activities to the domains in which they are accomplished (e.g., diversity, product, or employee relations; Groening et al. 2016; Jayachandran et al. 2013; Mishra and Modi 2016). Lastly, the examination of contingency factors in the CSR–firm value link represents an emerging research field (Mishra and Modi 2016; Servaes and Tamayo 2013), and prior research calls for clarification of the role of CSI in general and CSI context in particular (Leonidou et al. 2013; Lin-Hi and Müller 2013; Sadovnikova and Pujari 2016). Missing is an integrated response to these calls that serves to guide CSR efforts of firms that are involved in CSI.

To close this gap, we ask three research questions: (1) Does the occurrence of CSI affect the firm value effect of CSR? If so, (2) can CSR types be distinguished that differ in their firm value effects when CSI is present? And (3) do these effects depend on CSI contexts?

We draw on instrumental stakeholder theory (IST; Jones 1995) as a theoretical starting point for answering these questions. Accordingly, CSR helps to establish trusting stakeholder relationships that positively affect a firm's financial performance. However, opportunistic behavior like CSI may lead stakeholders to cut back or even reverse their positive evaluation of CSR, possibly harming firm value (Barnett 2007; Schuler and Cording 2006). Hence, at first glance, CSR may be a questionable or even risky undertaking in the face of CSI. However, we suggest that such a concern results from an overly broad conceptualization of CSR as a monolithic construct that does not account for different types of CSR engagements.

Both CSR and CSI can be further delineated according to the thematic domains they address (Mishra and Modi 2016). We build on such a fine-grained understanding to derive two CSR options for firms with CSI: CSR that relates to the same domains affected by CSI (SD-CSR) and CSR that taps into other domains

not affected by CSI (OD-CSR). While this distinction itself is straightforward, the decision of which CSR type (if any) should be prioritized is not clear for managers. When CSI is present, 11% of firms prefer to allocate CSR investments exclusively to SD-CSR, 38% opt to conduct OD-CSR only, 22% engage in both types of CSR, and 29% do not engage in any CSR at all.¹ We seek to provide a theoretically driven answer by pinpointing that while SD-CSR indicates inconsistent firm behavior (as moral values conveyed by CSR activities clash with bad deeds), OD-CSR represents consistent behavior within domains. In line with IST, we hypothesize that the two types have different implications for stakeholder relationships and might well differ in their firm value effects in general and across CSI contexts in particular.

Table 1 distinguishes this paper from the only two studies that have focused on the firm value effects of CSR and CSI in parallel (Jayachandran et al. 2013; Kang et al. 2016). In general, we are the first to focus on the role of CSI with respect to CSR efforts' firm value implications. In particular, we provide conceptual, theoretical, and managerial contributions.

Conceptually, first, the paper reinforces recent calls to capture CSR and CSI as distinct constructs (Jayachandran et al. 2013; Kang et al. 2016). We show that the occurrence of CSI reduces the firm value effect of CSR. The presence of this interaction means that combining CSR and CSI in an overall measure is at best an oversimplification and at worst erroneous. Second, we take this effect as a starting point for differentiating CSR types as to whether they relate to domains affected by CSI (SD-CSR vs. OD-CSR). Doing so extends prior work that has initiated the disaggregation of overall CSR into more specific actions (Mishra and Modi 2016). The distinction is unique in that it distinguishes CSR actions conceptually.

Theoretically, we advance the debate about whether CSR aligns with shareholder wealth maximization (Luo and

¹ These numbers refer to the sample described in Study 2.

Table 1 Studies that focus on the effects of CSR and CSI on firm value

	Jayachandran et al. (2013)	Kang et al. (2016)	This study
Consideration of an interaction between CSR and CSI	×	×	✓
Consideration of CSR types	✓	×	✓
Consideration of CSI contextual factors	×	×	✓
Key objective	Comparison of the effects of (product and environmental) CSR and CSI on firm value.	Simultaneous examination of the links between CSR, CSI, and firm value.	Examination of the role of CSI for the CSR–firm value link and the firm value effects of CSR types (same domain CSR and other domain CSR). Exploration of the role of CSI contextual factors for the link between CSR types and firm value.
Key finding	(Product) CSI’s negative effect on firm value outruns (product) CSR’s positive effect on firm value.	Only two relationships are significant: CSR enhances firm value and CSI enhances CSR.	The presence of CSI plays an important role in shaping the effect of CSR on firm value. Whether same domain CSR and other domain CSR are beneficial for driving firm value in the face of CSI depends on the CSI context.
Key implications for future research	Separate CSR and CSI measures should be preferred over one overall CSR measure. CSR should be further disaggregated as to the domains addressed. Contextual factors need more attention.	Separate CSR and CSI measures are preferable to one overall measure. The effect of CSR on firm value should be examined while controlling for CSI.	CSR, CSI and their interaction should be accounted for. Researchers should distinguish between same domain CSR and other domain CSR as both have differential performance implications. CSI contextual factors should receive more attention.

Bhattacharya 2006) by demonstrating that, all else equal, SD-CSR does not affect firm value while OD-CSR enhances firm value. The results are meaningful given that IST has been questioned by studies that do not find CSR effects on firm value (e.g., Mishra and Modi 2016).

Managerially, the paper’s findings confirm that adjusting CSR efforts with the firm’s CSI pattern solves the CSR dilemma outlined above. The paper’s findings facilitate managerial CSR decision making in the face of CSI by classifying CSR engagement relative to CSI, and they save managers of CSI-affected firms from misreading potentially beneficial CSR activities as harmful and vice versa. In addition, by showing that the effectiveness of SD- and OD-CSR is moderated by CSI contextual factors (CSI proneness and CSI externalization) this research presents concrete, context-specific strategies for CSR engagement in the light of CSI.

An instrumental stakeholder theory perspective on CSR

We build our theorizing on stakeholder theory (Freeman 1984), which is the most established theoretical framework applied in

CSR research (Barnett 2007; Homburg et al. 2013). A central tenet of stakeholder theory is that the firm can be viewed as a nexus of implicit or explicit contracts with its stakeholders—groups or individuals that can affect or are affected by the achievement of the firm (Freeman 1984). Consequently, in their decision making firms should consider the expectations and claims of not only shareholders but all relevant stakeholders (e.g., customers, employees, community; Donaldson and Preston 1995; Jones 1995).

The instrumental strand of stakeholder theory makes the case for a positive impact of CSR on the firm’s financial well-being (Donaldson and Preston 1995). Instrumental stakeholder theory (IST) suggests that CSR helps to establish competitive advantage through trusting stakeholder relationships (Barnett 2007; Jones 1995). Trust has been described as confidence in someone’s reliability and integrity (Morgan and Hunt 1994) and includes the conviction that someone behaves with ethical correctness (Greenwood and van Buren 2010). CSR signals a firm’s trustworthiness because it allows insights into a firm’s value system and indicates that the firm cherishes social issues and stakeholder welfare (Brown and Dacin 1997; Jones and Murrell 2001). Thus, CSR influences what stakeholders can expect from a relationship

with the firm and whether the firm is worthy of stakeholders' support. By increasing trust among stakeholders, CSR eventually drives firm outcomes, including firm value (Homburg et al. 2013; Vlachos et al. 2009).

While IST predicts a positive relationship between CSR and firm value, empirical research has drawn an ambiguous picture of CSR's financial outcomes. Various studies provide evidence for a positive relationship (e.g., Hull and Rothenberg 2008), no relationship (e.g., Servaes and Tamayo 2013), and even a negative relationship between CSR and financial performance (e.g., Wright and Ferris 1997). We contend that one reason for the conflicting findings might be that most studies aggregate CSR and CSI to an overall measure (e.g., Hull and Rothenberg 2008; Luo and Bhattacharya 2006). However, several scholars note that CSR and CSI display distinct patterns of firm action that might not be accounted for when calculating an overall measure (Mattingly and Berman 2006; Strike et al. 2006). Indeed, a rarely mentioned aspect of IST suggests that the avoidance of opportunism is crucial for establishing trusting stakeholder relationships through CSR (Jones 1995). Because CSI hurts stakeholders' interests, it indicates the firm's opportunism and potentially hinders that CSR establishes trustworthiness. IST therefore implies that CSR's firm value effect is affected by CSI occurrence which we discuss in Study 1.

Another reason for the conflicting findings might be that the majority of prior studies do not differentiate between different CSR activities (e.g., Kang et al. 2016; Shiu 2017). However, a crucial question is how firms should engage in CSR to enhance firm value despite the presence of CSI. Thus, we examine different options for engaging in CSR in the face of CSI in Study 2.

Study 1: the role of CSI for the firm value effect of CSR

To capture the firm value effect of CSR in the face of CSI, we need to disentangle the two variables rather than using an overall approach to capturing them. We define CSR as firm actions that improve the well-being of stakeholders or society at large (Korschun et al. 2014; Kotler and Lee 2005; Mishra and Modi 2016). CSI, in contrast, subsumes firm actions that hurt the well-being of stakeholders or society at large (Kang et al. 2016; Strike et al. 2006).

The interactive effect of CSR and CSI on firm value

The general expectation put forward by IST suggests that CSR increases firm value owing to more trusting, stronger stakeholder relationships.² Both IST and recent theorizing further

suggest that stakeholders use CSI as a cue for interpreting and evaluating CSR, pointing to a potential interaction between the two variables. Schuler and Cording (2006) theorize that stakeholders evaluate CSR against the knowledge of other socially relevant actions (e.g., CSI). Similarly, Barnett (2007) proposes that stakeholders react differently to CSR depending on their perception of the firm's character. CSI represents a negative deviation from the behavioral norm that is "diagnostic of the true underlying character of the target being evaluated" (Mishina et al. 2012, p. 463). In turn, CSI may indicate a potential lack of morality and opportunism on the part of the firm (Godfrey et al. 2009). These arguments imply that the counterevidence on the firm's morality and values offered by CSI leads stakeholders to view CSR as inconsistent behavior, resulting in the perception that the firm's CSR engagement is insincere (Yoon et al. 2006), which reduces the firm's trustworthiness in the eyes of stakeholders (Barnett 2007; Schuler and Cording 2006). CSR is then less effective or even counterproductive for enhancing firm value. Formally:

H1: The positive effect of CSR on firm value is weaker for firms with CSI.

Data sample

If H1 holds true, we should find a negative interaction effect between CSR and CSI on firm value. To test this expectation, we merge data from two sources.

To measure variables that capture CSR and CSI, we draw on the Kinder, Lydenberg, and Domini (KLD) database, which is widely used in CSR studies recently published in top-tier journals (e.g., Mishra and Modi 2016; Servaes and Tamayo 2013). KLD extensively covers firms' socially relevant actions that are substantial and noteworthy in their impact on stakeholders and society by relying on independent experts that rate information from multiple publicly available sources, such as the Securities and Exchange Commission filings surveys, financial statements, articles in the press and in academic journals, and government reports. Starting in 1991, the KLD database today contains yearly ratings for more than 3000 of the largest U.S. firms and reflects all important industries. Beyond these general advantages, the KLD database has two characteristics that make it highly germane to our research. First, the database provides a differentiation of strengths and concerns that allows for the separate examination of CSR and CSI (Strike et al. 2006). Second, the KLD database covers several strengths and concerns across all important domains (corporate governance, employee relations, diversity, environment, product, community and human rights). We use firm observations between 1991 and 2009 to build our sample based on KLD data.³

² Given that the main effect of CSR on firm value has received sufficient evidence in prior empirical research (e.g., Margolis and Walsh 2003), we do not formulate a hypothesis for it.

³ Owing to the substantial measurement modifications KLD undertook after 2009, this time period is the longest researchers have examined so far. In fact, only one study considers a comparable time frame (Kang et al. 2016).

We derive the remaining variables from Compustat. We match the initial KLD sample with Compustat data and remove all cases for which Compustat data are not available. We end up with 17,345 firm-year observations including 3041 firms.

Variable construction

All KLD indicators are subject to binary coding. For example, for the work/life benefits strength indicator, KLD assigns a “1” when the company has outstanding employee benefits or other programs addressing work/life concerns, and “0” if otherwise. For the retirement benefits concern indicator, KLD assigns a “1” when the company has either a substantially underfunded defined benefit pension plan or an inadequate retirement benefits program, and “0” if otherwise. The complete list of indicators appears in the Appendix.

We construct two variables from KLD: CSR and CSI occurrence. For the CSR variable, given that the number of indicators varies across domains and years, we adapt a scaling procedure from prior research (Servaes and Tamayo 2013). We first scale the number of strengths with a KLD rating of 1 for a firm within each domain by the maximum possible number of strengths within the domain in the respective year. The resulting scales range between 0 and 1 for each domain. We then sum these scaled numbers of strengths across the seven domains, resulting in a measure that is anchored by 0 and 7. CSI occurrence is measured as a dummy variable that equals 1 if the firm had at least one concern and 0 if otherwise.⁴ We measure CSI occurrence in the previous period because theorizing requires that stakeholders must have had a chance to be aware of CSI when they evaluate CSR.

We derive the remaining variables from Compustat. We measure firm value as Tobin’s *q*, which is the most widely accepted firm value measure in the marketing, management, and finance literature (Chauvin and Hirschey 1993; Rao et al. 2004; Servaes and Tamayo 2013). Tobin’s *q* is the ratio of the market value of a firm to the replacement value of a firm’s assets. As its calculation is based on stock market price, Tobin’s *q* is a forward-looking measure that indicates long-term profitability by reflecting expectations of the firm’s future cash flows and growth opportunities (Bharadwaj et al. 1999). Tobin’s *q* is most appropriate for this study because theory predicts that CSR affects firm value by establishing trusting stakeholder relationships, which requires a long-term horizon. CSR’s effects are therefore expected to unfold via long-term rather than short-term profitability (e.g., return on assets, current cash flows; Jayachandran et al. 2013). Moreover, in contrast to other firm value metrics, Tobin’s *q* is

adjusted for market risk and is not sensitive to accounting conventions guaranteeing comparability across industries (Anderson et al. 2004). We follow other marketing studies (e.g., Rao et al. 2004) and construct Tobin’s *q* for each firm observation according to Chung and Pruitt (1994) as follows:

$$\text{Tobin's } q = (\text{MVE} + \text{PS} + \text{DEBT})/\text{TA} \quad (1)$$

where MVE = (share price at the end of the financial year) × (number of common shares outstanding), PS = liquidating value of the firm’s preferred shares, DEBT = (current liabilities – current assets) + (book value of inventories) + (book value of long-term debt), and TA = book value of total assets.⁵

We also include a comprehensive set of control variables. First, we control for R&D intensity because it extends to innovations that influence the firm’s productivity (McWilliams and Siegel 2000) and capture it as the ratio of the firm’s R&D expenses to total assets (Luo and Bhattacharya 2009). Second, we account for advertising intensity because it enhances sales and influences the firm’s visibility (Conchar et al. 2005; Servaes and Tamayo 2013). As with R&D, we measure advertising intensity relative to the firm’s total assets (Luo and Bhattacharya 2009). Third, we control for financial leverage as it indicates a firm’s strategic flexibility (Kurt and Hulland 2013). We gauge it as the ratio of a firm’s long-term debt to its total assets. Fourth, we control for firm size since it might entail higher vulnerability to CSI, and we measure it as the logarithm of the number of employees (Bharadwaj et al. 1999). Fifth, to account for competition effects, we control for industry concentration, operationalized as the Herfindahl index (Kurt and Hulland 2013). Finally, we also include year dummies to control for time effects (Jayachandran et al. 2013). Table 2 summarizes the variables, and their measurement, data source, and literature support. We report descriptives and correlations in Table 3.

Analysis approach

Modeling We follow related studies and employ a linear mixed model (Groening et al. 2016; Jayachandran et al. 2013). Linear mixed models account for dependence within firms and heterogeneity across firms respectively by splitting the overall error variance into within-firms and between-firms variance components. More specifically, linear mixed models allow modeling fixed effects that refer to the marginal mean firm response and random effects that reflect a conditional mean firm response capturing firm variation (Fitzmaurice et al. 2011).

The model needs to answer the question of whether CSR’s firm value effect differs across firms that are involved

⁴ Please note that we are interested in whether the CSR effect differs across firms with or without CSI, not in whether the amount of CSI plays a role. However, we also calculate the total number of concerns as an alternative measure for CSI and replicate the results in the analysis section using this measure.

⁵ We winsorize the variable firm value at the 1% level to avoid biased effects due to extreme observations in our data set (Servaes and Tamayo 2013).

Table 2 Variable measurement, data source, and literature support

Variable	Study	Measurement	Data source	Literature support
Key variables				
Firm value	Studies 1 and 2	Tobin's q	COMPUSTAT	Rao et al. (2004)
CSR	Study 1	Sum of strengths; scaled for each domain separately by the maximum possible number of strengths	KLD	Servaes and Tamayo (2013)
Same domain CSR	Study 2	Sum of strengths in domains with at least one concern; scaled for each domain separately by the maximum possible number of strengths	KLD	Based on Servaes and Tamayo (2013)
Other domain CSR	Study 2	Sum of strengths in domains without concerns; scaled for each domain separately by the maximum possible number of strengths	KLD	Based on Servaes and Tamayo (2013)
Moderator variables				
CSI occurrence	Study 1	Dummy variable with 1 for firm observations with at least one concern, and 0 for firm observations without concerns	KLD	Godfrey et al. (2009)
CSI proneness	Study 2	Average number of concerns across a firm's industry; scaled by the maximum possible number of concerns	KLD	Own measure
CSI externalization	Study 2	Ratio between the number of concerns in a firm's institutional environment domains and the overall number of concerns	KLD	Adapted from Mattingly and Berman (2006)
Control variables				
R&D intensity	Studies 1 and 2	R&D expenses divided by book value of total assets	COMPUSTAT	Luo and Bhattacharya (2009)
Advertising intensity	Studies 1 and 2	Advertising expenses divided by book value of total assets	COMPUSTAT	Luo and Bhattacharya (2009)
Financial leverage	Studies 1 and 2	Long-term debt divided by book value of total assets	COMPUSTAT	Kurt and Hulland (2013)
Firm size	Studies 1 and 2	Natural log of the number of employees	COMPUSTAT	Bharadwaj et al. (1999)
Industry concentration	Studies 1 and 2	Herfindahl index	COMPUSTAT	Kurt and Hulland (2013)
CSI intensity	Study 2	Sum of concerns; scaled by the maximum possible number of concerns	KLD	Servaes and Tamayo (2013)
CSI severity	Study 2	Ratio between the number of a firm's major concerns and the overall number of concerns	KLD	Own measure

in CSI, as expected from H1. We formulate the following equation:

$$\begin{aligned}
 \text{Firm value}_{it} = & \mu + \beta_1 \times \text{CSR}_{it} + \beta_2 \times \text{CSI}_{it} \\
 & + \beta_3 \times \text{CSR}_{it} \times \text{CSI}_{it} + \beta_4 \times \text{R\&D}_{it} + \beta_5 \times \text{AD}_{it} \\
 & + \beta_6 \times \text{LEV}_{it} + \beta_7 \times \text{SIZE}_{it} + \beta_8 \times \text{CONC}_{it} \\
 & + \sum_t \alpha_t \text{TIME}_t + \zeta_i + \varepsilon_{it}
 \end{aligned} \tag{2}$$

where *i* = firm; *t* = observation year; μ = the overall grand intercept; CSR = overall CSR; CSI = CSI occurrence;

R&D = R&D intensity; AD = advertising intensity; LEV = financial leverage; SIZE = firm size; CONC = industry concentration; TIME = year dummies accounting for year-specific effects. The equation also considers ζ = firm-specific random effect capturing unobserved firm heterogeneity (constant across years with zero population mean and a variance σ_ζ^2 over firms). Unobserved firm characteristics may explain differences across the firms' CSR approaches. For instance, organizational cultures or leadership styles can entail various CSR approaches. Failing to consider this unobserved

Table 3 Descriptive statistics and correlations of variables in Study 1 sample

Variable	M	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. Firm value	1.61	1.24	1.00							
2. CSR	.27	.35	.06	1.00						
3. CSI occurrence	.77	.42	-.06	.07	1.00					
4. R&D intensity	.04	.09	.25	-.01	-.01	1.00				
5. Advertising intensity	.02	.05	.12	.05	-.04	-.05	1.00			
6. Financial leverage	.20	.21	-.11	-.05	.03	-.08	-.02	1.00		
7. Firm size	1.68	1.79	-.13	.34	.12	-.33	.04	.09	1.00	
8. Industry concentration	.06	.06	-.03	-.05	.00	-.17	.07	-.03	.14	1.00

Correlations greater than or equal to |.02| are statistically significant ($p < .05$, two-tailed)

heterogeneity across firms results in omitted variables bias—the under- or overestimation of effects because one or more important variables are missing (Jacobson 1990). Finally, ε is the residual component, specific to each firm at each year (with zero population mean and a variance σ_ε^2 over firms and years).

Endogeneity Eq. (2) does not address the fact that CSR can be driven by firm-specific omitted factors that vary between years. For instance, CSR actions may be driven by performance-relevant changes within the firm unknown to the researcher (e.g., changes in the executive board composition). In such cases, CSR correlates with the error term causing endogeneity and in turn produces biased estimates. To correct for such endogeneity we include Gaussian copulas in our model estimation (Burmester et al. 2015; Datta et al. 2015). The advantage of Gaussian copulas is that they are instrument-free, thus circumventing the problems of finding strong instrumental variables (Rossi 2014). Instead, Gaussian copulas capture the correlation of the endogenous variables and the error term by modeling their joint normal distribution on the basis of the observed data. They generate consistent parameter estimates even when the assumed normal distribution of the error term is not present (Park and Gupta 2012). We construct the copula term for CSR as follows:

$$C_CSR_{it} = \Phi^{-1}(H_{CSR}(CSR_{it})) \quad (3)$$

where Φ^{-1} is the inverse of the normal cumulative distribution function and $H_{CSR}(CSR_{it})$ is the empirical distribution of the CSR variable. We add C_CSR_{it} as a control to Eq. (2).

Results

Prior to calculating the interactions and running the model, we mean-center all continuous independent variables to facilitate interpretability (Aiken and West 1991). To test for multicollinearity, we inspect the correlations between the independent variables (see Table 3) and the variance inflation factors (VIFs). The maximum correlation is .34, which is below the threshold of .8 (Judge et al. 1988). The maximum VIF is 7.96, which is below 10 (Hair et al. 2010).⁶ We conclude that multicollinearity does not pose a threat to the results. We also test the usefulness of Gaussian copulas, which hinges on the non-normality of the variables. The Shapiro-Wilk test provides information on the non-normality of variables and

⁶ We observe a value of 1 for the binary variable CSI for 77% of all observations, which underlines the relevancy to examine CSR in the face of CSI. However, the high number of 1s results in a high correlation between the CSR variable and the CSR-CSI interaction and a relatively high maximum VIF. When we replace the binary CSI measure by a continuous CSI measure that captures the total number of concerns and rerun the analysis, the maximum VIF shrinks to 2.85 while all effects remain stable. Similarly, if we run the model without the CSR-CSI interaction (i.e., Model 1) all other effects remain stable while the maximum VIF is reduced to 1.77.

confirms non-normality of the potentially endogenous variable CSR ($W_{CSR} = .85, p < .01$).

We report two models in Table 4. Model 1 does not include an interaction between CSR and CSI occurrence, but Model 2 does. The fit measures show that adding the interaction improves model fit. We therefore interpret Model 2. CSR has a positive and significant effect on firm value, as expected on the basis of both IST arguments and prior findings (Kang et al. 2016). Further, the effect of the interaction between CSR and CSI occurrence on firm value is negative and significant ($\beta = -.38, p < .05$), lending support for H1.⁷ The remaining effects are in line with prior research (e.g., Lee and Grewal 2004; Rao et al. 2004), bolstering the validity of the model.

Discussion

The results of Study 1 show that CSI negatively moderates the firm value effect of CSR. This finding supports our theorizing that stakeholders may devalue CSR in the face of CSI, eventually leading to less trusting, weaker stakeholder relationships and lower firm value for firms with CSI. We conclude that CSR deserves deepened empirical consideration when CSI occurs. As has been the norm in most prior research (e.g., Kang et al. 2016), we adopt an undifferentiated measure of CSR in Study 1. Yet managers of firms involved in CSI are keen to find ways to engage in financially beneficial CSR activities rather than being punished for doing so. Study 2 thus focusses on options for engaging in CSR in the face of CSI.

Study 2: CSR types' firm value effects in the face of CSI

Engaging in CSR in the face of CSI

Same domain CSR and other domain CSR As compared to Study 1, where we examine the overall effectiveness of CSR when CSI occurs, we adopt a more fine-grained perspective in Study 2 and argue that stakeholders do not necessarily question every CSR engagement in the face of CSI. Rather, we suggest that on the basis of comparable information stakeholders primarily evaluate CSR actions with respect to their (in)consistency with CSI, eventually leading to different firm value effects.

In elaborating on information offered via CSR and CSI, prior research has argued that stakeholders evaluate CSR and CSI with respect to the different possible thematic domains in which these activities are embedded rather than evaluating each activity in isolation (Jayachandran et al. 2013;

⁷ When we replace the binary CSI occurrence measure by an alternative CSI measure that captures the total number of concerns and rerun the analysis, all effects remain stable, including the interaction effect ($\beta = -.87, p < .05$).

Table 4 Moderating effect of CSI for the CSR-firm value relationship

Independent variable	Hypothesis (Expected sign)	Model 1			Model 2		
		Coefficient	SE	Sig.	Coefficient	SE	Sig.
Constant		1.71	.04	**	1.70	.04	**
CSR		.25	.05	**	.38	.08	**
CSI occurrence		-.01	.02		-.02	.02	
CSR × CSI occurrence	H ₁ (-)				-.14	.07	*
Control variables							
R&D intensity		2.13	.34	**	2.13	.35	**
Advertising intensity		1.55	.35	**	1.54	.32	**
Financial leverage		-.31	.09	**	-.31	.09	**
Firm size		-.17	.01	**	-.17	.01	**
Industry concentration		.26	.17		.28	.18	
C_CSR		-.06	.01	**	-.06	.01	**
Firm-specific random effect		.95	.01	**	.94	.01	**
Residual		.70	.01	**	.70	.01	**
Log likelihood		-21,733.24			-21,730.07		
Wald chi-square		2701.75			2782.86		
Akaike information criterion		43,526.48			43,522.15		
N		17,345			17,345		

Coefficients are unstandardized. For the analysis, we use bootstrap standard errors with 200 repetitions (Burmester et al. 2015; Park and Gupta 2012). Time dummies are included in the models but not reported. To avoid a large reduction of sample size owing to firms' non-disclosure of advertising and R&D spending in the Compustat database, we included two separate dummy variables that equal "1" if advertising (R&D) spending information is disclosed and "0" if respective information is not disclosed (Luo and Bhattacharya 2009)

* $p < .05$; ** $p < .01$

Mishra and Modi 2016). Doing so reduces complexity and uncertainty and enhances the accuracy of stakeholder expectations and the predictability of a firm's future behavior (Schoorman et al. 2007). According to categorization and CSR research, stakeholders assign CSR and CSI activities to domains such as employee relations, diversity, human rights, corporate governance, product, environment, and community relations (Sen and Bhattacharya 2001) on the basis of the higher order attributes that characterize these domains (Rosch and Mervis 1975). For instance, stakeholders categorize firm actions such as the implementation of operational safety and health programs (i.e., CSR) and downsizing the workforce (i.e., CSI) as belonging to the domain of employee relations because both represent employee topics.

However, prior research implies that processing domain-specific information not only shapes the separate evaluation of CSR and CSI but additionally provides insights on how CSR and CSI interplay within domains. CSI demonstrates opportunism and a lack of morality in one domain and therefore may influence the interpretation of CSR in the same domain. If CSR and CSI activities share higher order attributes that are tied to the same category (i.e., domain), stakeholders perceive high levels of

inconsistency between CSR and CSI. Thus, whether CSR and CSI overlap in terms of the addressed domain is of crucial importance for stakeholders' trust perceptions. Consideration of CSI may determine whether stakeholders are able to create a coherent picture of the firm's identity and morality when they evaluate CSR activities (Janney and Gove 2011). Indeed, initial experimental evidence suggests that the thematic relatedness between CSR activities and the firm's negative societal impact enhances the perception of insincere motives for CSR (Yoon et al. 2006). Building on such arguments, our conceptualization aligns with the theorizing that stakeholders consider the domain overlap with CSI, because it provides information on the (in)consistency of firm behavior and the firm's trustworthiness.

We therefore distinguish two types of CSR by whether they have a domain overlap with CSI. *Same domain CSR* (SD-CSR) embraces firm actions that improve the well-being of stakeholders or society at large in the same domain(s) affected by CSI. As an example of a CSR action that qualifies as SD-CSR, the outdoor clothing and gear provider Patagonia contributed to environmental protection with programs such as the World Trout Initiative (i.e., CSR in the environmental domain) but was also criticized for processing chemicals that

are harmful to the environment (i.e., CSI in the environmental domain; Patagonia 2013).

In contrast, *other domain CSR* (OD-CSR) embraces firm actions that improve the well-being of stakeholders or society at large in the domain(s) not affected by CSI. As an example of a socially desirable action that qualifies as OD-CSR, Wal-Mart contributed to the environment through energy-reduction initiatives and by offering environmentally friendly products (i.e., CSR in the environment domain), but it was also criticized for dubious labor practices that had negative outcomes for employees (i.e., CSI in the employee domain; Aston 2009).⁸

Firm value effects of same domain CSR and other domain CSR SD-CSR relates to domain(s) in which the firm behaves socially irresponsibly. When stakeholders evaluate SD-CSR, the domain overlap to CSI enhances their retrieval of CSI information pointing to the firm's opportunistic behavior. Stakeholders then realize that the firm's good deeds clash with bad deeds in the same domain, indicating contradictory moral values and arousing stakeholder perceptions of inconsistent firm behavior (Janney and Gove 2011). These perceptions of inconsistency trigger stakeholders to interpret such engagements as insincere and hypocritical (Wagner et al. 2009; Yoon et al. 2006). Owing to the resulting lack of credibility, SD-CSR undermines trust and avoids building strong stakeholder relationships. By anticipating that stakeholder benefits fail to appear, investors assume that the costs for such engagement come straight off the bottom line (Jensen 2002). In addition, investors view SD-CSR as a signal of weak management capabilities as the resources for such CSR engagement could have been more wisely spent in other business areas (Jensen 2002). Hence, all else being equal, we expect a negative effect of SD-CSR on firm value:

H2: SD-CSR has a negative impact on firm value.

In contrast, OD-CSR refers to domains in which the firm raised no red flag through CSI. OD-CSR does not give rise to an informational conflict when stakeholders evaluate it against the informational background marked by CSI. As OD-CSR activities fall into different domains than CSI, they do not trigger perceptions of moral contradictions and inconsistent firm behavior. Rather, OD-CSR draws an unambiguous picture of the firm's interest in enhancing social welfare in the respective domains and thus leads to clear stakeholder interpretations regarding what to expect from the firm (Vlachos et al. 2009; Webb and Mohr 1998). We therefore suggest that

OD-CSR leads to trusting stakeholder relationships. The benefits of such stakeholder relationships then outweigh the costs associated with OD-CSR in investors' minds inducing higher firm value. Thus:

H3: OD-CSR has a positive impact on firm value.

The role of CSI context

CSI proneness and CSI externalization Study 1 provides evidence that CSI affects the firm value effect of CSR. This finding indicates that further zooming in on CSI may be a fruitful undertaking. Indeed, recent research has pointed to the potential role of CSI context for the CSR-firm value relationship (Leonidou et al. 2013; Sadovnikova and Pujari 2016). Hence, we now discuss whether factors that characterize the CSI context have the potential to further influence when SD-CSR and/or OD-CSR are more or less financially beneficial. We account for CSI context variables both on the industry- and firm-level.

Moderating effects of CSI proneness Representing an industry-level contextual factor, *CSI proneness* is an industry's susceptibility for irresponsible behavior. High CSI proneness means that the average level of CSI in an industry is high and therefore suggests that CSI is more likely to arise owing to industry-inherent pitfalls than to the individual firm's lack of morality.

We suggest that SD-CSR's negative effect on firm value is attenuated when CSI proneness is high. In CSI-prone industries, CSI occurs frequently. Therefore, firms in such industries have more touch points with stakeholder concerns for social and environmental issues (Peretz et al. 1997), drawing particular attention to stakeholder expectations to compensate for the negative societal impact (Banerjee et al. 2003; Varadarajan 2017). On the basis of such an industrial background, stakeholders are more likely to judge SD-CSR as an imperative rather than as an indication of a lack of morality and inconsistent firm behavior. Likewise, CSI proneness increases stakeholders' awareness that firms in such risk-loaded industries cannot fully acquit themselves of CSI. Stakeholders then interpret SD-CSR as the firm's efforts to demonstrate its responsiveness to their negative impact. The resulting positive stakeholder evaluations and stronger stakeholder relationships may (at least partially) outweigh the costs that investors associate with SD-CSR, attenuating SD-CSR's negative effects on firm value. Thus:

H4: The negative effect of SD-CSR on firm value is weaker when CSI proneness is high.

Further, we suggest that the positive effect of OD-CSR on firm value is higher in CSI-prone industries. Those industries

⁸ For ease of illustration, we assume that neither of the exemplary firms engaged in other CSR or CSI activities.

are inherently associated with regular negative societal impact. Firms in such industries typically have less incentive to enhance stakeholder welfare in the first place because the risk of failing with such initiatives is high (Barnett and King 2008; Leonidou et al. 2013). However, if firms seek to achieve this goal, they must engage in noteworthy activities to establish a reputation for being socially responsible given the adverse conditions in “bad” industries. By demonstrating that the firm has genuine interest in being responsible, OD-CSR then offers the firm a unique opportunity to demonstrate that it is willing to counter the bad image of the industry the firm operates in. Given that such engagement is rarely observed in CSI-prone industries and is largely unexpected by stakeholders, it is more noticeable and leads to a positive surprise (Schepers et al. 2012). OD-CSR’s potential to strengthen stakeholder relationships is then accentuated, enabling the firm to reap more financial benefits in the long run. Thus:

H5: The positive effect of OD-CSR on firm value is stronger when CSI proneness is high.

Moderating effects of CSI externalization Representing a firm-level contextual factor, *CSI externalization* is the degree to which CSI transpires in the firm’s institutional environment as compared to the firm’s task environment.⁹ Because the institutional environment sets the norms and rules for proper social conduct toward society at large, firm actions in this area are diagnostic of the values that guide the firm’s business (Handelman and Arnold 1999). In this sense, high CSI externalization indicates that the firm transgresses norms that are well established in society.

We suggest that the negative effect of SD-CSR on firm value is strengthened for high CSI externalization. Low CSI externalization suggests that the firm’s negative impact largely remains in the task environment where the affected parties not only have chosen to connect closely with the firm but also have the power to punish the firm. In other words, the firm stands the negative consequences of its business operations rather than passing them on to society. This signals responsibility taking and the firm’s willingness to protect societal welfare and corrects the inconsistency perceptions that explain the negative impact of SD-CSR. Contrary, high CSI externalization suggests that the firm’s negative impact is passed on to broader society where the affected parties have no immediate stake in the firm’s business operations and are therefore unable to punish the firm for the harm done. The firm thus exploits societal welfare to maximize their own economic welfare. Such conduct calls into question the moral character and

integrity of the firm (Godfrey et al. 2009), further lowering SD-CSR’s credibility and harming stakeholder relationships. The result is a more negative impact of SD-CSR on firm value when CSI externalization is high. Thus:

H6: The negative effect of SD-CSR on firm value is stronger when CSI externalization is high.

Finally, we assume that the positive effect of OD-CSR on firm value is weaker in the presence of high CSI externalization. When CSI primarily occurs in institutional domains, despite the normative pressure to refer to institutional norms, stakeholders find the cause of CSI to lie in a lack of morality rather than external factors (Yoon et al. 2006). In the context of high CSI externalization, stakeholders thus view the firm’s good deeds with skepticism and they are less likely to take OD-CSR at face value—that is, as an unambiguous interest in enhancing social welfare. Stakeholders are more likely to interpret OD-CSR as the firm’s attempt to whitewash a lack of morality, which reduces the authenticity of OD-CSR engagement. We therefore suggest that for high CSI externalization, the potency of OD-CSR for strengthening stakeholder relationships is weakened and results in a less positive impact on firm value. Thus:

H7: The positive effect of OD-CSR on firm value is weaker when CSI externalization is high.

Data sample

Since the key interest of Study 2 lies in examining different CSR activities of firms that are involved in CSI, we need to define a more focused sample than that used in Study 1. Critically, to test the theorizing that stakeholders judge CSR in the context of CSI, we need to ensure that CSI became public before stakeholders evaluated CSR. Therefore, starting with the sample described in Study 1, we include all observations where a firm had at least one concern (i.e., CSI) in the previous year. We end up with 13,411 firm observations including 2682 firms, which accounts for 77% of the firm observations considered in the Study 1 sample.

Variable construction

We construct the dependent variable firm value as in Study 1. Study 2 however requires different variables. As is the standard in research that uses KLD data, we measure these variables using KLD’s strength and concern items across domains (e.g., Strike et al. 2006) and adapt the measurement procedures from prior research (Servaes and Tamayo 2013).

As the theorizing requires that CSI information be available when stakeholders evaluate CSR, we refer to all CSI-related information (i.e., concerns) in the previous year. For SD-CSR, we consider strengths in the domain(s) in which a firm had at

⁹ The task environment is the source of resource exchanges that enable a firm to meet its demands and goals (Mattingly and Berman 2006). The institutional environment is the source of normative expectations that are based on social and cultural systems of meaning. This classification is equivalent to the distinction between primary and secondary stakeholders (Godfrey et al. 2009).

least one concern in the previous year. We scale the number of the binary strength indicators with a value of 1 for a firm within each of the CSI-inflicted domains by the maximum possible number of strengths within each of these domains, resulting in a scale that ranges between 0 and 1 in each domain. We then sum these strength scales for each firm year to obtain the SD-CSR measure. Given that the maximum number of domains is 7, the scale is anchored by 0 and 7. We use the equivalent procedure to construct OD-CSR, but we use only strengths in the domain(s) in which a firm had no concern in the previous year. We scale the number of strengths for a firm within each CSI-free domain by the maximum possible number of strengths within these domains. We sum the strength scales for each firm year to obtain the OD-CSR measure (anchored by 0 and 7).

Next, we consider two moderator variables that further describe the firm’s CSI. To measure CSI proneness, we scale the total number of concerns with a value of 1 for each firm by the maximum possible number of concerns in a year and take the average of these values for the firm’s industry based on two-digit SIC codes. To measure CSI externalization, we take the ratio between the number of a firm’s concerns in domains referring to the institutional environment and the firm’s overall number of concerns.¹⁰

We measure the control variables R&D intensity, advertising intensity, financial leverage, firm size, and industry concentration exactly as in Study 1. However, we also consider additional controls: CSI intensity and CSI severity, both captured in the previous year to align with the other CSI-related measures. To construct CSI intensity, we scale the number of concerns for a firm by the maximum possible number of concerns. Next, to measure CSI severity we treat concerns that include substantial fines and civil penalties as major concerns¹¹ and measure CSI severity as the ratio between the number of major concerns and the overall number of concerns per firm. Table 2 provides an overview of variable constructions and data sources. Table 5 contains descriptive statistics of the variables and their correlations.

Analysis approach

Modeling For the same reasons as in Study 1, we estimate a linear mixed model to examine the firm value effects of different types of CSR activities for firms that are involved in CSI. However, we adjust Eq. (2) to account for the CSR types

¹⁰ As is the norm (e.g., Godfrey et al. 2009; Luo et al. 2015), we use Mattingly and Berman’s (2006) domain classification and treat the environment, human rights, and community domains as a firm’s institutional environment (i.e., “secondary” domains) and the employee, corporate governance, diversity, and product domains as a firm’s task environment (i.e., “primary” domains).

¹¹ Major concerns are hazardous waste and regulatory problems in the environment domain; product safety, marketing/contracting concern and antitrust in the product domain; health and safety concern in the employee relations domain; controversies in the diversity domain.

and the moderating effects as predicted in H2–H7:

$$\begin{aligned} \text{Firm value}_{it} = & \omega + \gamma_1 \times \text{SD}_{it} + \gamma_2 \times \text{OD}_{it} \\ & + \gamma_3 \times \text{PRON}_{it} + \gamma_4 \times \text{SD}_{it} \times \text{PRON}_{it} + \gamma_5 \times \text{OD}_{it} \times \text{PRON}_{it} \\ & + \gamma_6 \times \text{EXT}_{it} + \gamma_7 \times \text{SD}_{it} \times \text{EXT}_{it} + \gamma_8 \times \text{OD}_{it} \times \text{EXT}_{it} \\ & + \gamma_9 \times \text{R\&D}_{it} + \gamma_{10} \times \text{AD}_{it} + \gamma_{11} \times \text{LEV}_{it} + \gamma_{12} \times \text{SIZE}_{it} \\ & + \gamma_{13} \times \text{CONC}_{it} + \gamma_{14} \times \text{INT}_{it} + \gamma_{15} \times \text{SEV}_{it} \\ & + \sum_t \delta_t \text{TIME}_t + \lambda_i + v_{it} \end{aligned} \tag{4}$$

where *i*, *t*, R&D, AD, LEV, SIZE, CONC, and TIME are the same as in Eq. (2) and ω , λ , and v have equivalent meaning as μ , ζ , and ε in Eq. (2); SD = same domain CSR; OD = other domain CSR; PRON = CSI proneness; EXT = CSI externalization; INT = CSI intensity; SEV = CSI severity.

Endogeneity As in Study 1, we calculate Gaussian copulas for SD-CSR and for OD-CSR:

$$C_SD\text{-CSR}_{it} = \Phi^{-1}(H_{SD\text{-CSR}}(\text{SD-CSR}_{it})) \tag{5}$$

$$C_OD\text{-CSR}_{it} = \Phi^{-1}(H_{OD\text{-CSR}}(\text{OD-CSR}_{it})) \tag{6}$$

where Φ^{-1} and $H(\cdot)$ have meaning equivalent to Eq. (3). We add the resulting terms $C_SD\text{-CSR}_{it}$ and $C_OD\text{-CSR}_{it}$ to Eq. (4).

Sample selection As the objectives of Study 2 require a sample that consists only of firms that are involved in CSI, we need to control for sample selection bias.¹² We employ the two-step procedure developed by Heckman (1976). First, we run a random-effects probit model to estimate a firm’s probability of being involved in CSI, using firm size, return on assets (ROA), and industry dummies as predictors of CSI (Sullivan et al. 2007). Firm size is an important predictor because large firms have more complex business processes that complicate the management of stakeholder relationships. ROA is a meaningful predictor because striving for higher short-term profits is often a reason for CSI. We account for industry dummies because some industries face a higher probability of CSI occurrence.¹³ Second, we use the probit estimates to calculate the inverse Mills ratio by dividing the probability density function by the cumulative distribution function of the standard normal distribution and add it as a control to Eq. (4).

Results

Prior to calculating the interactions and running the models, we mean-center all independent variables (Aiken and West 1991). To test for multicollinearity, we inspect the correlations between

¹² We compare average total assets of firm observations with CSI with average total assets of firm observations without CSI. Significant differences underline the need to correct for sample selection bias.

¹³ According to our theoretical arguments, the Heckman selection model reveals significant effects for ROA and firm size as well as many significant industry dummies. The results are available upon request.

Table 5 Descriptive statistics and correlations of variables in Study 2 sample

Variable	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Firm value	1.57	1.21	1.00											
2. Same domain CSR	.10	.22	-.03	1.00										
3. Other domain CSR	.19	.26	.12	.21	1.00									
4. CSI proneness	.06	.03	-.10	.18	.01	1.00								
5. CSI externalization	.19	.30	-.15	.19	.09	.33	1.00							
6. R&D intensity	.04	.08	.27	-.03	.02	-.10	-.16	1.00						
7. Advertising intensity	.01	.04	.11	-.02	.08	-.07	-.03	-.04	1.00					
8. Financial leverage	.20	.21	-.11	-.01	-.08	.11	.08	-.09	-.01	1.00				
9. Firm size	1.80	1.81	-.11	.32	.28	.08	.23	-.34	.05	.09	1.00			
10. Industry concentration	.06	.06	-.03	-.01	-.06	.08	-.06	-.19	.08	-.02	.13	1.00		
11. CSI intensity	.08	.06	-.11	.55	.02	.41	.34	-.10	-.04	.07	.39	.01	1.00	
12. CSI severity	.20	.30	-.10	.21	.06	.23	.29	-.16	-.01	.11	.35	.00	.31	1.00

Correlations greater than or equal to $|\text{.02}|$ are statistically significant ($p < .05$, two-tailed)

the explanatory variables (see Table 5) and the VIFs. The maximum correlation is .55, which is below .8 (Judge et al. 1988). The maximum VIF is 3.56, which is well below 10, indicating that multicollinearity does not pose a threat to the results (Hair et al. 2010). We also test the usefulness of Gaussian copulas that hinges on the non-normality of the variables, which is necessary for identification purposes. The Shapiro-Wilk test confirms that SD-CSR and OD-CSR are non-normally distributed ($W_{\text{SD-CSR}} = .80, p < .00$; $W_{\text{OD-CSR}} = .87, p < .00$).

Table 6 shows the results for both Model 1 as a main-effect-only model and Model 2 that additionally includes the moderated effects, which improves model fit. Model 2's findings demonstrate that SD-CSR has no significant effect on firm value ($\gamma = -.10, p > .10$), and thus we reject H2. In contrast, the results provide support for H3, because OD-CSR has a positive and significant impact on firm value ($\gamma = .41, p < .01$).

Regarding the moderator hypotheses, the results show that the interaction between SD-CSR and CSI proneness has a positive and significant effect on firm value ($\gamma = 3.57, p < .01$), in support of H4. The analysis results further suggest that CSI proneness positively and significantly moderates OD-CSR's effect on firm value ($\gamma = 2.67, p < .05$). Thus, H5 is also supported. However, we find no significant effect of the interaction between SD-CSR and CSI externalization on firm value ($\gamma = .24, p > .10$), and thus we reject H6. Further, the findings indicate that CSI externalization negatively and significantly moderates the effect of OD-CSR on firm value ($\gamma = -.18, p < .05$), in support of H7.

Regarding the remaining effects, CSI intensity has a (moderately) significant negative impact on firm value, which corresponds to the finding of Kang et al. (2016) suggesting that more CSI weakens stakeholder relationships and thus lowers firm value.¹⁴ Finally, in line with our theorizing that high CSI externalization indicates that the firm systematically transgresses established societal rules, CSI externalization's firm value effect is negative and significant.

Additional analysis

Floodlight analysis of moderating effects We perform floodlight analysis to offer additional insight on the significant interaction effects. Floodlight analysis involves testing the effects of the independent variables on the dependent variable at numerous values across the observed range of the moderating variable (Spiller et al. 2013). We estimate parameters of the direct effects of CSR types on firm value for the observed range of the moderating variables using increments of .02. The beta estimates are plotted in Figs. 2 and 3 along with the 95% confidence interval band.

Alarming, Fig. 2, Panel A shows that when CSI proneness is lower than approximately .04, SD-CSR has a significant negative impact on firm value. Beyond that point, where the upper confidence interval band crosses the x-axis, SD-CSR has no impact on firm value. From approximately .14, where the lower confidence interval band crosses the x-axis, the effect becomes significantly positive. Thus, SD-CSR may yield either negative effects, no effect, or positive effects on firm value, depending on the level of CSI proneness. Further, Fig. 2, Panel B shows that OD-CSR has a significant positive effect on firm value for the entire observed range of CSI proneness (because the upper and lower confidence interval bands are both well beyond the x-axis) and this effect increases with increasing levels of CSI proneness. Fig. 3 shows that OD-CSR has a significant positive effect on firm value for the entire

¹⁴ Alternatively for CSI intensity, we control for CSI history—a firm's cumulative CSI incidents in the last three years—to account for the possibility that a firm is a repeat offender. To estimate CSI history, we use a decay measure estimated as follows: $\text{CSI history}_{it-1} = \frac{1}{1} \text{CSI intensity}_{it-1} + \frac{1}{2} \text{CSI intensity}_{it-2} + \frac{1}{3} \text{CSI intensity}_{it-3}$ (Shiu 2017). The CSI history variable yields a similar effect as the CSI intensity control ($\gamma = -.21, p < .10$). All other effects remain stable. We thank an anonymous reviewer for this suggestion.

Table 6 Effects of CSR types on firm value

Independent variable	Hypotheses (Expected signs)	Model 1			Model 2		
		Coefficient	SE	Sig.	Coefficient	SE	Sig.
Constant		1.11	.06	***	1.11	.06	***
CSR types							
Same domain CSR	H ₂ (-)	-.02	.08		-.10	.08	
Other domain CSR	H ₃ (+)	.40	.08	***	.41	.07	***
Moderators and interactions							
CSI proneness		.45	.46		.27	.44	
Same domain CSR × CSI proneness	H ₄ (+)				3.57	1.02	***
Other domain CSR × CSI proneness	H ₅ (+)				2.67	1.27	**
CSI externalization		-.15	.03	***	-.13	.03	***
Same domain CSR × CSI externalization	H ₆ (-)				.24	.15	
Other domain CSR × CSI externalization	H ₇ (-)				-.18	.09	**
Control variables							
R&D intensity		2.63	.24	***	2.63	.25	***
Advertising intensity		1.54	.42	***	1.56	.42	***
Financial leverage		-.23	.09	***	-.23	.08	***
Firm size		-.02	.02		-.02	.02	
Industry concentration		-.39	.20	**	-.38	.19	**
CSI intensity		-.31	.19	*	-.35	.21	*
CSI severity		-.01	.03		-.00	.03	
Inverse Mills ratio		2.11	.25	***	2.08	.24	***
C_SD-CSR		-.02	.01		-.01	.01	
C_OD-CSR		-.08	.01	***	-.08	.01	***
Firm-specific random effect		.89	.01	***	.89	.01	***
Residual		.67	.01	***	.67	.01	***
Log likelihood			-16,435.29			-16,425.22	
Wald chi-square			3079.18	***		3528.47	***
Akaike information criterion			32,942.59			32,930.44	
N			13,411			13,411	

Coefficients are unstandardized. For the analysis, we use bootstrap standard errors with 200 repetitions (Burmester et al. 2015; Park and Gupta 2012). Time dummies are included in the models but not reported. To avoid a large reduction of sample size owing to firms’ non-disclosure of advertising and R&D spending in the Compustat database, we included two separate dummy variables that equal “1” if advertising (R&D) spending information is disclosed and “0” if respective information is not disclosed (Luo and Bhattacharya 2009)

p* < .10; *p* < .05; ****p* < .01

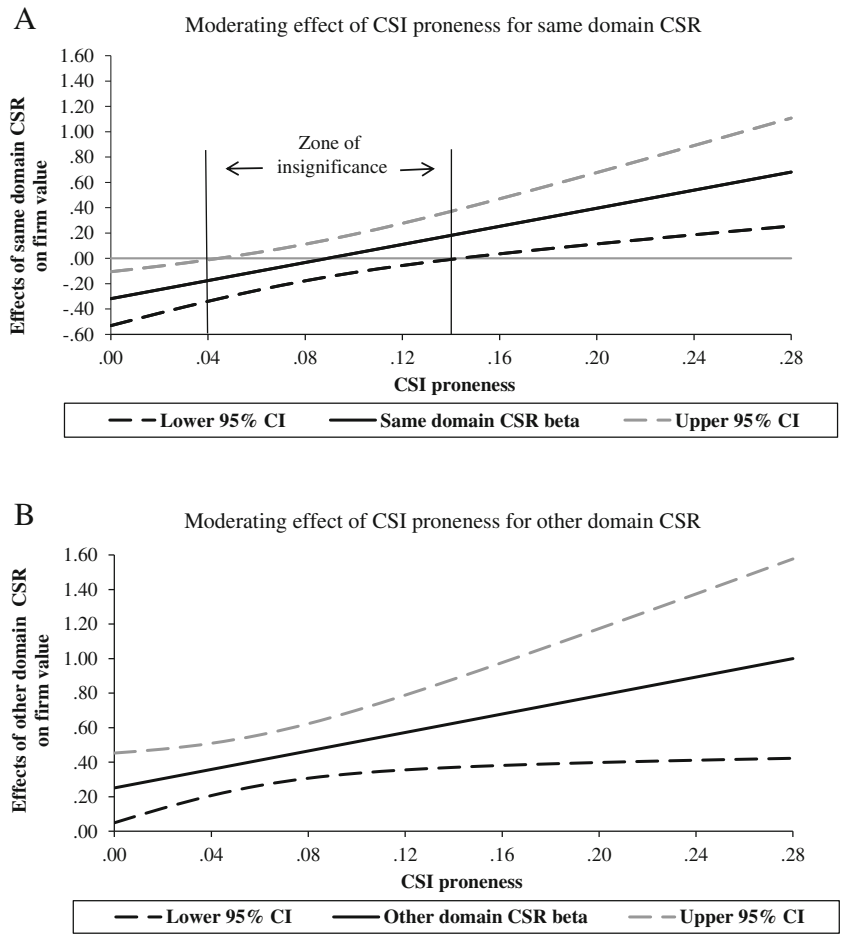
range of CSI externalization, but the positive effect decreases with increasing levels of CSI externalization.

Robustness checks To further enhance the validity of the findings, we conduct holdout sample validation. Given that the purpose of the model is descriptive or normative rather than predictive, we aim to demonstrate estimation consistency rather than prediction accuracy (Ebbes et al. 2011). We split our sample into a holdout sample that involves the last four years and an estimation sample that involves the remaining earlier years. We then estimate the model for the estimation sample and we predict the Tobin’s q values for both

samples on the basis of these estimates. We evaluate the relative estimation versus holdout sample performance by comparing correlation coefficients between the observed and predicted Tobin’s q values of both samples. We find a correlation of .31 (.44) for the holdout sample (estimation sample), which indicates that model estimates produce consistent results regardless of the sampled time period.

Further, by measuring all concerns in binary terms, KLD does not explicitly allow differentiation of less severe concerns from more severe concerns. Please note that we introduce the control variable CSI severity to address this problem, based on whether concerns included substantial fines and civil

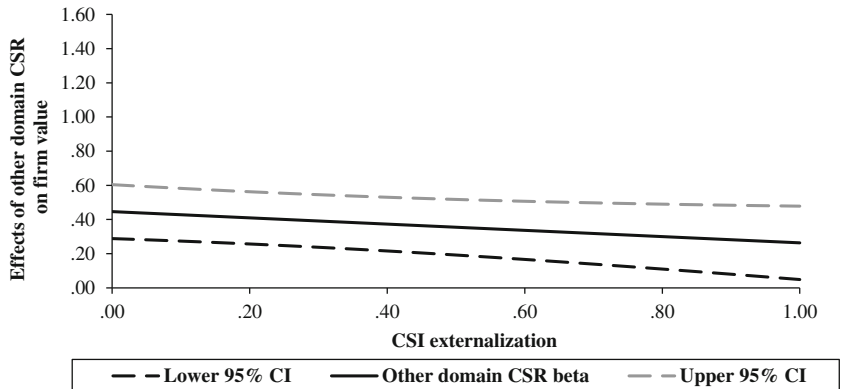
Fig. 2 Moderating role of CSI proneness for CSR types
 Notes: The effects of CSR types on firm value shown in the graphs are based on the estimates of the floodlight analysis. For ease of understandability, we retransformed the mean-centered values of CSI proneness



penalties. However, in addition, to enhance confidence that the results are not driven by the severity of specific CSI incidents, we select a sample with firms that faced at least one minor CSI incident and recalculated SD-CSR and OD-CSR, CSI intensity, and CSI externalization based solely on minor CSI incidents. We then rerun the analysis, offering a more conservative test of the theorizing. All results remain the same.

Finally, the publicity of the firm and its actions could affect our results. We therefore rerun our analysis with interactions between the CSR types and advertising intensity as proxy for firm publicity (Rinallo and Basuroy 2009). The effects of the CSR types remain stable while the interactions are not significant, suggesting that publicity does not affect our results. The results are available upon request.

Fig. 3 Moderating effect of CSI externalization for other domain CSR
 Notes: The effect of other domain CSR on firm value for CSI externalization is based on the estimates of the floodlight analysis. For ease of understandability, we retransformed the mean-centered values of CSI externalization



Discussion

Building on the finding of Study 1 that CSR is financially devalued when CSI occurs, Study 2 delivers insight into how firms should engage in CSR in such context. Bolstering notions in CSR research that the financial performance effects of CSR are not uniform (Barnett 2007), the results of Study 2 demonstrate that distinguishing between SD-CSR and OD-CSR and considering CSI context helps disentangle the positive, neutral, and negative firm value effects of doing good.

General discussion

In this paper, we elaborate on the role of CSI and CSI context in creating firm value effects of CSR initiatives. We first theorize and demonstrate that CSI is accompanied by decreased financial returns for CSR. We then make a conceptual differentiation between distinct CSR approaches when CSI occurs: same domain CSR (SD-CSR) and other domain CSR (OD-CSR). All else equal, the results show that SD-CSR has no effect on firm value, but OD-CSR significantly enhances firm value. The results also point to the important role of CSI context, as they show that the choice between SD-CSR and OD-CSR can be decisive for whether a beneficial, no or even a harmful effect on firm value is observed.

Implications for researchers

This paper comes with implications for researchers, which are both conceptual and theoretical in nature. Conceptually, we provide an empirical backing for the suggestion that CSR and CSI should not be commingled in an overall measure (Jayachandran et al. 2013; Kang et al. 2016). The significant interaction effect between CSR and CSI on firm value implies that commingling CSR and CSI into one measure leads to neglecting undesirable cross-over effects and thus may draw an overly positive picture of CSR's firm value impact. Researchers should thus not only examine CSI and CSR as distinct constructs in parallel but also consider that CSR interacts with CSI in influencing firm value.

Moreover, by deriving CSR types on the basis of the domain overlap to CSI, we add to the scarce research that has offered a conceptually founded CSR differentiation on a moderately aggregated level (e.g., primary vs. secondary CSR engagement; Godfrey et al. 2009). Such CSR differentiation is helpful because it avoids the hazards of extremely aggregated as well as overly disaggregated approaches: On the one end, research has focused on an undifferentiated CSR measure that blends all CSR activities into one construct (e.g., Servaes and Tamayo 2013). Doing so masks potential differences between the activities. For instance, less effective CSR activities may cancel out the effects of more effective ones (Rowley and

Berman 2000). On the other end, some studies have disaggregated CSR activities with respect to CSR domains such as environment and community (Jayachandran et al. 2013; Mishra and Modi 2016). However, these studies often end up with surprisingly insignificant effects, because stakeholders may prefer more easily interpretable information than it is provided on the level of CSR domains (Jayachandran et al. 2013; Wang et al. 2008). The conceptual approach to differentiate CSR activities presented in this paper offers more detailed insight as compared to an overall CSR measure while avoiding the conceptual looseness of a disaggregation according to CSR domains. We therefore recommend researchers to prefer conceptual CSR differentiations that capture the key aspects that drive stakeholders' CSR evaluations over completely aggregated and completely disaggregated approaches.

With regard to theory, this study bolsters the appropriateness of IST by spotlighting aspects that researchers have scarcely considered. First, the arguments we have put forward, together with the empirical findings, show that IST is not only a useful theory for explaining the main effect of CSR on financial performance (which has been the focus of prior IST applications) but also for understanding how CSR and CSI interact. IST suggests that CSR's ability to establish trusting stakeholder relationships is influenced by opportunistic firm behavior (Jones 1995). Given that CSI represents opportunistic firm behavior, by showing that CSI and CSR interact, we offer initial empirical evidence for this largely overlooked tenet of IST. Second, IST suggests that CSR types can differ in their potential to establish trusting firm–stakeholder relationships (Jones 1995), but remains silent as to the CSR types this applies to. We identify two such CSR types (i.e., SD-CSR and OD-CSR) and show that their effects on firm value are largely in line with IST's predictions. As such, the results imply that researchers can use IST to explain firm value effects of different CSR activities, not only an overall effect of CSR.

Further, also with respect to theory, we advance the understanding of contingency factors in the CSR–firm value link (Luo and Bhattacharya 2006, 2009). In general, we extend current research by establishing the moderating roles of CSI and CSI context (e.g., CSI proneness and CSI externalization). In particular, the consideration of contingencies (together with the disaggregation of CSR into two types) helps to elaborate on recent findings suggesting that CSR is a fruitless endeavor for offsetting CSI in general (Kang et al. 2016). Specifically, the results reveal that CSR only works if it taps into another domain than CSI or if it is established in CSI-prone industries. Overall, given that CSR's firm value effects vary considerably across CSI contexts, we conclude that researchers would benefit from accounting for the role of CSI when examining CSR's effects on firm performance.

Implications for managers

Practical evidence of CSR failures shows that CSR actions are often ineffective or even backfire (Browne and Nuttall 2013). Particularly, firms with CSI face hard times because their subsequent CSR engagements may lead to unfavorable stakeholder reactions (Lynn 2015). Indeed, we show that this concern is warranted as the occurrence of CSI diminishes the ability of CSR to enhance firm value. A first generic implication is that managers should not view CSR engagements as isolated from CSI occurrence because stakeholders do not do so.

In terms of actionable strategies for managers, this research implies that CSI occurrence complicates CSR decision making. Thus, the first obvious recommendation for managers is to avoid CSI at all. When CSI occurs, however, the results indicate that not throwing all CSR activities into one pot can help managers to allocate resources to actions that are still financially rewarded. As a starting point, we recommend that managers classify their CSR engagement into SD-CSR and OD-CSR. We further recommend that, all else equal, managers should favor OD-CSR over SD-CSR as it always comes with positive impact on firm value. Managers should find this recommendation valuable because deciding between the two is not trivial. For instance, managers may argue that stakeholders expect SD-CSR as compensation or may perceive it as a hypocritical attempt to wash away the firm's sins, with opposing implications for firm value. Similar considerations can be made for OD-CSR. Indeed, Fig. 4 demonstrates that for managers, whether SD-CSR or OD-CSR is more beneficial is not at all intuitive: The majority of firms made suboptimal or even detrimental decisions: 11% of firms have prioritized SD-CSR, 22% have engaged in both types, and 29% have decided not to engage in any CSR. Only a minority of these firms (38%) engaged in financially beneficial OD-CSR.

Further, by showing that CSI context is pivotal for the choice of CSR activities, the study's findings allow for clear recommendations regarding when SD-CSR and OD-CSR are

more or less favorable. When the firm's industry peers are tainted by CSI, the firm should engage in SD-CSR and OD-CSR as both are financially rewarded. For our sample, this holds true for "problem industries" such as metal mining, tobacco products, agricultural production crops, and petroleum refining industries. While these industries often worry about potential skepticism when engaging in CSR activities, our results actually indicate that they have the highest freedom to choose a CSR activity. On the flip side, in industries with low CSI proneness (e.g., personal services, educational services, engineering, accounting, research, and management), managers should refrain from SD-CSR because it backfires on firm value. Firms in industries with moderate CSI proneness (e.g., chemicals and allied products, industrial and commercial machinery and computer equipment) cannot expect to be financially rewarded for SD-CSR. However, they also need not fear that such engagements will conflict with financial goals.

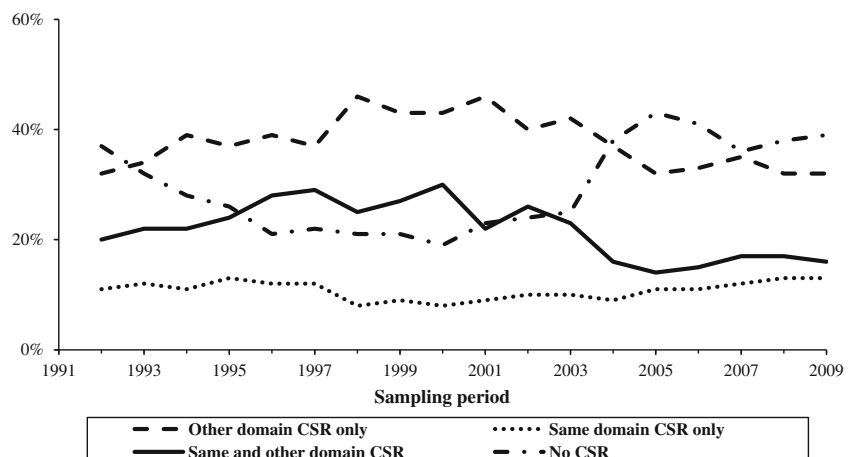
Our study also shows that OD-CSR is a promising investment in every context and thus managers should pursue such engagement to ensure financial returns on CSR. Depending upon context, managers certainly need to adjust their expectations regarding the financial reward of OD-CSR up- or downwards. With higher CSI proneness managers can expect leveraged financial effects for OD-CSR. When CSI externalization is high, OD-CSR's firm value effect shrinks.

Limitations and future research

While this research sheds new light on the CSR–firm value relationship, it has certain limitations that provide avenues for future research. Although the findings are fairly consistent with our theoretical framework, like all other CSR research that uses secondary data to focus on the firm value effects of CSR, we did not directly test the underlying theoretical mechanism (e.g., Godfrey et al. 2009; Jayachandran et al. 2013). While there is initial evidence for such mechanism (Homburg

Fig. 4 Firms' CSR activities in the face of CSI

Notes: The sample contains all firm observations from the Kinder, Lydenberg, and Domini database used for Study 2 ($N = 13,411$). Specifically, the sample only contains firm observations with CSI



et al. 2013), future research could use experimental and survey methods to test the mechanism more explicitly. Further, while the KLD data is the de facto standard for capturing CSR and CSI and provides ratings of strengths and concerns across important domains for a long time period (Strike et al. 2006), the advantages come at a price. For instance, the binary measures do not allow for a differentiation between items in terms of their social relevance. We are the first to address this issue by controlling for CSI severity and by replicating the results while excluding major concerns. However, future research should propose alternative ways to deal with this challenge. Lastly, we note that our sample comprises only publicly held firms, which are naturally confronted with pressure from shareholders and the public to manage CSR.

Conclusion

In the presence of CSI, CSR engagement can be perceived as insincere, which could create a social responsibility dilemma

for practitioners: both refraining from CSR and engaging in CSR may be ill-advised in terms of firm value effects. The findings of our study indicate that managers indeed face such dilemma and that this dilemma can be solved by differentiating between SD-CSR and OD-CSR and by considering the CSI context. The results hold value for both firms and society. Firms benefit because the results show that even in the face of CSI, aligning doing good with doing well is possible. Society gains because it benefits from firms' continuous CSR efforts.

Acknowledgement This project was funded by the German Research Foundation (Deutsche Forschungsgemeinschaft). The authors thank Editor Robert W. Palmatier, the Associate Editor, three anonymous reviewers, Torsten Bornemann, Yasemin Boztuğ, Till Dannewald, Xueming Luo, Waldemar Toporowski, and numerous participants of the 2012 AMA Summer Educators Conference in Chicago, the 2013 AMA Winter Educators Conference in Las Vegas, and the 2013 Doctoral Colloquium at the Faculty of Economic Sciences, University of Goettingen, for providing helpful comments and suggestions for improvement throughout the stages of this project.

Appendix

Table 7 List of KLD Items

Domain	Type	Items
Community	Strengths	Charitable giving
		Innovative giving
		Non-US charitable giving
		Support for housing
		Support for education (added '94)
	Concerns	Indigenous peoples relations (added '00; moved '02)
		Volunteer programs (added '05)
		Other strength
		Investment controversies
		Negative economic impact
Corporate governance	Strengths	Indigenous peoples relations (added '00; moved '02)
		Tax disputes (added '05)
		Other concern
		Limited compensation
		Ownership strength
	Concerns	Transparency strength (added '05)
		Political accountability strength (added '05)
		Public policy (added '07)
		Other strength
		High compensation
Concerns	Ownership concern	
	Public policy (added '07)	
	Accounting concern (added '05)	
	Transparency concern (added '05)	
	Political accountability concern (added '05)	
Other concern		

Table 7 (continued)

Domain	Type	Items	
Diversity	Strengths	CEO	
		Promotion	
		Board of directors	
		Work/Life benefits	
		Women & minority contracting	
Diversity	Concerns	Employment of the disabled	
		Gay & lesbian policies	
		Other strength	
		Controversies	
		Non-Representation	
Environment	Strengths	Other concern	
		Beneficial products and services	
		Pollution prevention	
		Recycling	
		Clean energy	
	Environment	Concerns	Communications (added '96; moved '05)
			Management systems
			Property, plant, and equipment (ended '95)
			Other strength
			Hazardous waste
Human rights	Strengths	Regulatory problems	
		Ozone depleting chemicals	
		Substantial emissions	
		Agricultural chemicals	
		Climate change (added '99)	
	Human rights	Concerns	Other concern
			Positive record in South Africa ('94-'95)
			Indigenous peoples relations strength (added '02)
			Labor rights strength (added '02)
			Other strength
Product	Strengths	South Africa (ended '94)	
		Northern Ireland (ended '94)	
		Burma concern (added '95)	
		Mexico ('95-'02)	
		Labor rights concern (added '98)	
	Product	Concerns	Indigenous peoples relations concern (added '00)
			Other concern
			Quality
			R&D/Innovation
			Benefits to economically disadvantaged
Employee relations	Strengths	Other strength	
		Product safety	
		Marketing/Contracting concern	
		Antitrust	
		Other concern	
Employee relations	Concerns	Union relations	
		No-Layoff policy (ended '94)	
		Cash profit sharing	
		Employee involvement	
		Retirement benefits strength	

Table 7 (continued)

Domain	Type	Items
		Health and safety strength
		Other strength
	Concerns	Union relations
		Health and safety concern
		Workforce reductions
		Retirement benefits concern (added '92)
		Other concern

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