

## Working Paper

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# The Cost of Corporate Social Responsibility after a Catastrophe

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Ross School of Business Working Paper  
Working Paper No. 1261  
May 2015

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## **The Cost of Corporate Social Responsibility after a Catastrophe**

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Previous research has found that CSR initiatives can preserve firm-value after an adverse event, or that CSR has “insurance-like” properties. Catastrophic events, however, can increase scrutiny and pressure upon an entire industry. To improve the industry’s damaged reputation and lessen external pressure, some members of the industry will often engage in self-regulation. I posit that firms with substantive corporate social responsibility (CSR) initiatives will actually lose more firm-value after a catastrophe, because they will be expected to engage in costly self-regulation after the event. I also argue that due to strategic activist targeting, firms subject to greater past activism will lose more firm-value. Using an event-study, I examine the apparel industry after the collapse of Rana Plaza.

Keywords: corporate social responsibility; event study; corporate reputation; activist pressure;

risk management

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## INTRODUCTION

A firm's performance can be heavily influenced by its reputation. Because audiences increasingly consider a firm's social responsibility when assessing the firm's overall reputation (Bermiss, Zajac, and King, 2013), many have adopted corporate social responsibility (CSR) initiatives. Past research has shown that CSR initiatives have "insurance-like," or risk management properties, that protect the firm's reputation and temper stakeholder reactions after an adverse event (Flammer, 2013; Fombrun, 2005; Fombrun, Gardberg, and Barnett, 2000; Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009; Kim and Lyon, 2011; Minor and Morgan, 2011). For example, after a product recall, a firm with a strict safety standards in place can signal to stakeholders that the firm has already taken steps to prevent such an event from occurring. This program allows the firm to signal that the event was more likely an aberration, rather than indicative of a systematic problem, causing stakeholders to give the firm "the benefit of the doubt" (Godfrey, Merrill, and Hansen, 2009). Thus, having implemented CSR initiatives can, under certain conditions, preserve firm-value after an adverse event.

Unfortunately, reputations can be difficult to manage, because the actions of other firms in an industry can shape a firm's reputation for the better or for the worse (Barnett and Hoffman, 2008; Hill and Schneeweis, 1983; Rees, 1994). Catastrophes such as the Exxon Valdez oil spill and the Union Carbide gas leak can shift stakeholder perceptions of an entire industry, not just for those firms that are responsible for the accident (Hoffman, 2001). Thus, firms within an industry share a "reputation commons" (Barnett, 2006; Fauchart and Cowan, 2014; King, Lenox, and Barnett, 2002). Catastrophic events create a reputation commons *problem* for industries because they increase public discontent with the industry overall, thereby increasing the risk of

boycotts, social movement pressures, and even lobbying for regulations (Barnett and King, 2008; Hoffman and Ocasio, 2001; Rees, 1997).

To temper stakeholder reactions to an industry-wide catastrophe, a subset of firms may individually decide to self-regulate and voluntarily make costly improvements to their social performance (Barnett and King, 2008). However, some firms will decide to free-ride, or benefit from the industry's improved reputation that results from the self-regulatory actions made by others, without making any improvements themselves (Dawson and Seeger, 2008; King and Lenox, 2000). Thus, a catastrophe that prompts industry self-regulation may destroy more firm-value for those expected to self-regulate to account for the cost of the future investments. I posit that firms with existing CSR initiatives are subject to greater expectations to be the self-regulators within the industry and will therefore lose more firm-value. If this is the case, then CSR might not always act as a risk management tool when the event is catastrophic enough to prompt industry self-regulation.

Beyond this, I explore several other factors that might influence the financial markets' response after an industry-wide catastrophe. I posit that firms subject to greater activism from non-governmental organizations (NGOs), will also be subject to greater pressure to self-regulate after the catastrophe. Finally, I argue firms can lessen the negative response from the markets when they are capable of distinguishing themselves from the industry as "good" CSR performers. By advertising their superior performance, firms with CSR may separate themselves from the negative perception of the industry (King, Lenox, and Barnett, 2002).

This study examines the market response to the apparel industry after the collapse of Rana Plaza in Bangladesh, which killed more than 1,100 employees. Worldwide attention to the collapse increased support for activists' demands for better safety standards in textile

manufacturing. The collapse was followed by a strong increase in pressure on the industry to self-regulate, but little to no threat of regulation from public officials. Thus, this setting allows me to isolate the effect of an increase in pressure for industry self-regulation on firm-value.

The results of the event study reveal that the markets responded more negatively to apparel firms with substantive CSR initiatives (i.e., they regularly audit their suppliers to ensure that they are complying with social standards, such as health and safety requirements). I also find that the markets responded more negatively to firms that are under greater pressure from activists. Finally, I find that the negative effect of having substantive CSR initiatives is mitigated when firms are better able to distinguish themselves as “good” CSR performers. This study contributes to the literature by exploring whether CSR initiatives might actually destroy firm-value after an industry-wide catastrophe that prompts the need for industry self-regulation by drawing on both reputation commons and social movement theories.

## **THEORY AND HYPOTHESES DEVELOPMENT**

In the following section, I draw upon theories on the reputation commons problem, the value of corporate social responsibility (CSR), and social movements to develop my hypotheses on the factors that drive the impact of an industry-wide catastrophe on firm-value.

### **Reputation commons problem**

A major catastrophe within an industry can shift the way the public, regulators, and investors perceive the entire industry, not just the firm at fault (Hoffman and Ocasio, 2001; Meyer, 1982; Yu, Sengul, and Lester, 2008). For example, after the Exxon Valdez oil spill an oil executive was quoted as saying “We were doing fine until Exxon spilled all that oil. Then we were painted by the same brush as them” (as quoted in Hoffman, 2001).

This interdependence of reputations within an industry has been referred to as a “reputation commons” (Barnett, 2006, Barnett and King, 2008, King, Lenox, and Barnett, 2002). This literature theorizes that because stakeholders often cannot distinguish between the good performers and the poor performers within an industry, all firms within an industry will benefit from the actions of the good performers and suffer from the actions of the poor performers. For example, a gas leak at a Union Carbide facility in Bhopal, India, which killed more than 3,000 people, damaged the value of all firms within the chemical industry (Blacconiere and Patten, 1994). In the wake of Union Carbide, a survey collected by the Chemical Manufacturers Association found that the majority of the public believed that “The chemical industry has no self-control” and that the industry “does not put safety and the environment first.” As Rees (1997) notes, such lack of support from the public can lead to increased rates of boycotts, protests, and eventually public policy changes.

One strategy firms can use to mitigate the reputation commons problem is to self-regulate (King, Lenox, and Barnett, 2002). Firms decide individually how much to self-regulate and those improvements collectively improve the industry’s aggregate reputation. Such actions can lessen pressure from regulators (Dawson and Segerson, 2008; Maxwell, Lyon, and Hackett, 2000) and improve the industry’s reputation with the public (Barnett and King, 2008), thereby diffusing the negative response to the catastrophe. Indeed, evidence suggests that firms within an industry do respond to the reputation commons problem created by a catastrophe by self-regulating. Patten (1992) found that after the Exxon Valdez oil spill there was a significant increase in environmental disclosures by the entire oil industry, not just Exxon. Furthermore, after the Union Carbide catastrophe the chemical industry created Responsible Care, a voluntary self-regulatory

institution. Participants of Responsible Care pledged to go above and beyond environmental regulatory requirements to help prevent future accidents.

Industry self-regulation, however, is a collective action problem and is therefore subject to free-riding (King and Lenox, 2000). Free riders make no improvements of their own, but still benefit from improvements of the self-regulators, which improve the industry's collective reputation. Dawson and Segerson (2008) model a situation in which an industry is threatened with regulation if it fails to improve its aggregate environmental performance. They find that only a subset of firms will make the investments needed to mitigate the threat. The proactive, in essence, subsidize the free riders to ensure that the collective performance of the industry has improved enough to mitigate the threat of regulation. Furthermore, a case study examining the European chlorine industry found that firms with strong safety programs engaged in costly efforts to help the poor performers improve their safety programs to diminish pressure from Greenpeace's "chlorine-free" campaign (Fauchart and Cowan, 2014). Thus, when confronted with regulatory or activist pressure (often brought upon by catastrophes), a subset of firms will respond strategically by self-regulating, while others will free ride. In anticipation of these expenses, the financial markets will react more negatively to the members of the industry they suspect will self-regulate.

I posit that firms with existing substantive CSR initiatives will be expected to make future improvements to their operations after a catastrophe. Substantive CSR initiatives have been defined as requiring the continued commitment of the firm to meet specific social or environmental goals, which often requires costly investments (Delmas and Montes-Sancho, 2010). Firms with substantive CSR at the time of the catastrophe will be subject to greater expectations from their stakeholders to self-regulate, because they have built a reputation as

being a “CSR leader.” Thus, they risk eliciting stronger negative reactions if they fail to react proactively (Dean, 2004).

Previous research has found that CSR initiatives can provide “insurance-like,” or risk management, protection after an adverse event (Flammer, 2013; Fombrun, Gardberg, Barnett, 2000; Godfrey, Merrill, and Hansen, 2009; Minor and Morgan, 2011). CSR initiatives cause stakeholder to give the firm “the benefit of the doubt,” because it signals to external stakeholders that the firm is behaving in a socially responsible manner in line with stakeholder expectations (Branco and Rodrigues, 2006; Husted, 2000), which consequently generates goodwill (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009). However, I argue that after a catastrophe, which is often followed by social movements demanding industry-wide improvements or changes, CSR initiatives signal that the firm will make the necessary adjustments to improve and remain in line with stakeholder’s *updated* expectations. Thus, CSR might not provide risk management after a catastrophic event that shifts stakeholder perceptions.

As such, I argue that financial markets will react more negatively to firms with substantive CSR initiatives. Financial markets will anticipate that firms with a history of investing in CSR activities will be subject to greater pressures from stakeholders to make costly changes needed to lessen pressure from the public. Therefore, I propose the following:

*H1: After a catastrophe, the decline in shareholder value is larger for firms with substantive CSR initiatives.*

### **Ability to differentiate**

An additional way to attempt to mitigate the reputation commons problem is for firms to differentiate themselves (King, Lenox, and Barnett, 2002). After a catastrophe, firms can advertise or provide information to their end-customers to inform them of their superior social or

environmental performance. Being able to credibly advertise superior performance might not entirely protect a firm from the negative effects of increased scrutiny or negative public opinion of the industry overall, but it might help insulate the firm's individual reputation.

Furthermore, customers increasingly value products that are manufactured in a socially responsible or environmentally friendly manner. A firm's social performance has been found to influence customers' willingness to pay a price premium for products (Roe, Levy, and Russell, 2001) and it influences customer perceptions of the quality of the firm's products (Sen and Bhattacharya, 2001). Catastrophes draw the public's attention to social and environmental issues inherent in the industry, which can increase demand for socially responsible or "green" products. For example, in Europe after horsemeat was discovered in food labeled as "all beef," demand increased for local butchers, who could credibly claim that their meat was 100 percent beef. However, demand for frozen burgers at supermarkets declined 41 percent after the discovery (Morris, 2014). As such, financial markets might react less negatively to firms with superior social and environmental performances after a catastrophe *as they can better distinguish themselves* for two reasons: 1) these firms can partially protect their reputations, and 2) the catastrophe may lead to an increase in demand for their products.

Unfortunately, there is a great deal of stakeholder confusion regarding the meaning and value of CSR claims (see King, Prado, and Rivera, 2010). Many of the CSR claims made are merely symbolic. Symbolic CSR initiatives are simply empty promises to behaving responsibly, while failing to make the necessary investments needed to ensure those commitments are met. Given that customers might unwittingly reward firms with symbolic initiatives, CSR initiatives, *regardless of their quality*, might help preserve firm-value after a catastrophe amongst firms that can more easily distinguish themselves from the industry. Therefore, I propose the following:

*H2: After a catastrophe, the decline in shareholder value is less negative for firms with CSR initiatives (regardless of quality) when they can distinguish themselves.*

### **Unequal sanctions from activists**

Catastrophes are often followed by public discontent and distrust with the industry overall (Rees, 1997). In their discussion of the reputation commons problem, Barnett and King (2008: pg. 1152) posit that all firms within the industry are subject to an increase in the probability of attacks from activists. This could be in the form of an increase in the number of (or the readership of) industry-wide reports from activist groups detailing social or environmental risks typical to the industry. For example, during their “Detox Fashion” campaign, Greenpeace released a series of reports on the apparel industry’s use of hazardous chemicals and dyes. These reports name dozens of “guilty” companies in the apparel industry, but they also illuminate systematic environmental risks associated with the industry at large.<sup>1</sup> However, while each firm in the industry might realize some increase in scrutiny from activists after a catastrophe, I posit a subset of firms will be impacted more severely.

Not all firms are targeted equally. In fact, work on social movements has shown that activist groups are highly strategic when deciding which firms to target and criticize (Briscoe, Chin, and Hambrick, 2014; Lenox and Eesley, 2009; Soule, 2009; Zhang and Luo, 2014). Baron and Diermeier (2007) theorize that because activist groups have limited resources, they will focus their attention on “soft targets,” or firms that they believe will be easier to pressure into conceding to their demands. Work on social movements has explored how activist groups influence firm practices by using targeted “name and shame” campaigns, boycotts, divestment

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<sup>1</sup> A list of the industry reports regarding their Detox campaign can be found on Greenpeace’s website here: <http://www.greenpeace.org/international/en/campaigns/toxics/water/detox/>. Last accessed December, 2014.

campaigns, and even lawsuits (Durand and Vergne, 2014; Eesley and Lenox, 2006; McDonnell and King, 2013; King, 2008). Such tactics not only create direct costs to the firm by interrupting operations, but also indirect costs by damaging the firm's reputation (Bartley and Child, 2011; Ingram, Yue, and Rao, 2010; King, 2011; Schurman, 2004).

To pressure the firm into making concessions, activists use such “contentious performances” to gain the attention and support of sympathetic stakeholders such as customers, potential employees, and investors (King and Pearce, 2010; Tilly, 2008). Activist groups use channels such as the media to promote and spread information on the firm's activities that the activist group wishes to change (King, 2008; King, 2011). Empirical evidence suggests that without support of the media activist pressure alone is unsuccessful (Campa, 2014). Because catastrophic events prompt increased media attention and the public's sympathy to the issues evoked by the catastrophe, existing activist campaigns can gain momentum. Moreover, the increased interest in the issues at hand can prompt new campaigns. Therefore, firms subjected to greater past activist pressure will be impacted more negatively by a catastrophe for two reasons: 1) the impact of existing campaigns will increase, and 2) because activists are highly strategic, firms targeted in the past are more likely to be targeted again in the future, because they have been previously identified as “soft” targets.

*H3: After a catastrophe, the decline in shareholder value is larger for firms that are subject to greater activist pressure.*

## **THE COLLAPSE OF RANA PLAZA**

On April 24th, 2013 in Dhaka, Bangladesh an eight-story building housing five textile manufacturers collapsed killing 1,127 employees and injuring 2,500 more. The building had been constructed without official permits and failed to meet basic building codes. It was also

revealed that factory managers had threatened to fire employees that refused to return to work despite employee concerns that the building was shaking and large cracks had formed overnight.

Twenty three apparel brands were eventually linked to Rana Plaza, either because they were sourcing from those factories directly or because their suppliers were sub-contracting to them (Clean Clothes Campaign, 2014). It took activists weeks to uncover the connections and even longer for the accused to confirm and admit that they had been connected to the factory. In the immediate aftermath of the collapse it remained largely unclear which brands were connected to Rana Plaza directly. However, images of the collapse were on the front page of newspapers worldwide.

In addition to spurring new reports from activist groups on the industry's labor conditions, including: "Fact Sheet: Unsafe Garment Factory Buildings," and "Never Again: Making Fashion's Factories Safe,"<sup>2</sup> the collapse also led to activists targeting specific companies. Protestors demonstrated outside of Primark's headquarters after it was discovered that Primark suppliers had subcontracted to factories in Rana Plaza. The activist group Avaaz also created an ad pairing a photo of the CEO of Hennes and Mauritz (H&M) next to a photo of a victim of the collapse with the caption "Karl-Johan, enough fashion victims?" This was despite H&M never being linked to Rana Plaza. Furthermore, The Gap, also never linked to Rana Plaza, was awarded the "Public Eye" award for the worst company of the year for "refus[ing] to contribute to effective reforms in the textile industry" after the collapse (War on Want, 2014).

Following the collapse, two activist groups, the CCC and the Workers' Rights Consortium, created the "Accord on Fire and Building Safety in Bangladesh," a voluntary self-

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<sup>2</sup> The Clean Clothes Campaign report "Still Waiting" can be found here: <http://www.cleanclothes.org/resources/publications/still-waiting/view>. The SOMO report "Fact Sheet" can be found here: [http://somo.nl/publications-en/Publication\\_3979/?searchterm=rana](http://somo.nl/publications-en/Publication_3979/?searchterm=rana). Last accessed December, 2014.

regulatory institution. Over 180 companies have joined the “Accord.” Members commit to having their suppliers in Bangladesh undergo independent safety inspections and they agree to rectify any identified safety issues. A second, smaller (26 members), self-regulatory institution, the “Alliance for Bangladesh Worker Safety,” was also created to help buyers audit their suppliers and improve conditions. In addition to joining these programs, firms also took action on their own to improve their operations. For example, H&M, which had a strong program at the time of the collapse, improved their conditions further by committing to only sourcing from suppliers for which they are the sole client. This was a costly decision in terms of lost flexibility, but it has allowed them to monitor conditions more closely (Gustafsson, 2013).

While the collapse was followed by substantial pressure from activists and the public for firms to self-regulate, it was not however, followed by any threat of future regulation from public officials. Only the German government has discussed the possibility of regulating supply chain conditions of apparel retailers and that discussion did not begin until April, 2014 – a full year after the collapse (Deutsche Welle, 2014). As of December, 2014 no official regulation has been confirmed. If the catastrophe had been likely to lead to regulation, then substantial CSR initiatives regarding supply chain working conditions might have preserved firm-value. In this case, firms with substantial initiatives will need to make fewer investments to meet the regulation requirements (Kim and Lyon, 2011; Schnietz and Epstein, 2005). Because the collapse only resulted in an increased threat of activist pressure, and not regulation, it allows me to empirically identify the impact that an increase in social movement pressure has on firm-value.

## DATA AND METHODOLOGY

### Sample

The primary goal of this paper is to understand the impact of ex ante supply chain policies and activist pressure on the intra-industry market reactions to the collapse of Rana Plaza. As such, I match data from Sustainalytics on supply chain policies to financial market data on companies in the apparel industry. Sustainalytics produces and sells corporate environmental, social, and governance (ESG) profiles to socially responsible investors. Sustainalytics covers the 4,092 publicly owned companies included on the MSCI world market index. Because I am interested in the markets' response to the apparel industry, I only include the 152 companies with SIC primary four-digit classifications related to the apparel industry.<sup>3</sup> After matching companies in these industry classifications to data from CompuStat and the World Economic Forum the final sample is comprised of 111 companies in 23 countries. The Sustainalytics dataset has been used by a number of researchers in the management and CSR literatures (e.g., Garcia-Castro and Francoeur, 2014; Surroca, Tribo, and Zahra, 2013; Wolf, 2013).

Table 1 reports the country distribution of the estimation sample.

[Insert Table 1 here]

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<sup>3</sup> These include: apparel and accessory stores; apparel and other finished products made from fabrics; apparel, piece goods, and notions – wholesale; department stores; family clothing stores; footwear, except rubber; men's and boys' furnishings, work clothing, and allied garments; grocery stores\*; knitting mills; leather and leather products\*; miscellaneous fabricated textile products; miscellaneous general merchandise stores; rubber and plastics footwear; shoe stores; textile mill products; variety stores\*; women's clothing stores; women's and misses', and juniors' outerwear; and women's, misses', children's, and infants' undergarments.

\*Firms with the following industry classifications: grocery stores, leather and leather products, and variety stores were checked to confirm that the firm either manufactured or sold products made with textiles. This information was obtained from the detailed firm descriptions in the Sustainalytics' Environmental, Social, and Governance reports. This resulted in the exclusion of 20 grocery stores, 1 variety store, and 1 leather and leather products firm. For example, Target is classified as a variety store, but it sells clothing under its own brand names. Thus, it is included.

## Empirical specification

To understand the determinants of intra-industry abnormal returns after the collapse of Rana Plaza I estimate an event study as summarized in MacKinlay (1997). These are commonly used to understand the financial implications of corporate events (e.g., McWilliams and Siegel, 1997) and social and environmental disasters (e.g., Blacconiere and Patten, 1994). The stock market reaction is captured by the cumulative abnormal returns (CARs) during the defined “event window.” Cumulative abnormal returns measure the extent to which a stock return deviates from its expected return after the event. To calculate the CARs, first, market risk-adjusted expected returns are estimated for each of the 111 firms in the sample with the following specification:

$$R_{it} = \alpha_i + \beta_i R_{mct} + e_{it},$$

where  $t=-120, \dots, -1$  days, which defines the estimation period, and  $R_{it}$  is the return on stock  $i$  at time  $t$ . Data on daily stock prices are gathered from CompuStat’s North American and Global Security Daily datasets. According to both Campbell, Cowan, and Salotti (2010) and Park (2004), multi-country event studies should use each country’s respective market index return. As such,  $R_{mct}$  represents the 23 MSCI country-specific ( $c$ ) indices (one for each country in my sample) at time  $t$ . The MSCI country-specific indices track large- and mid-cap equities that are listed on that country’s stock exchanges.

Second, estimates of the daily abnormal return (AR) of firm  $i$  on day  $t$  are calculated:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mct})$$

Finally, the CARs are determined by summing up the daily abnormal returns for each day in the “event window.” Similar to Blacconiere and Patten’s (1994) study of the Union Carbide environmental disaster, the collapse of Rana Plaza could not be anticipated, thus, the six-day

CAR begins the day of the event [0, +5].<sup>4</sup> A six-day event window is chosen because a relatively short window helps to ensure that the abnormal returns are being explained by the collapse of Rana Plaza and not unrelated events. However, new information continued to be released several days following the collapse, thus an event window of only one or two days would not likely capture the full effect of the collapse. For example, the article on the collapse in the New York Times the day of the collapse reported only 142 deaths,<sup>5</sup> but the article posted three days later on April 27<sup>th</sup> reported 348 deaths and many still missing.<sup>6</sup> Figure 1 shows the number of newspaper articles published on the collapse for one month after the event.<sup>7</sup>

[Insert Figure 1 about here]

The figure suggests that the collapse was highly prevalent in the media for the five business days following the collapse (until May, 1<sup>st</sup>), which is why I chose this window. The spike in media on May 9<sup>th</sup> was due to an unrelated fire that occurred at a textile factory in Bangladesh that renewed interest in the collapse, but no new information about the collapse was released.

To examine the impact of supply chain programs on stock markets to the collapse of Rana Plaza I estimated the following regression as my main model:

$$CAR_i(0, +5) = \alpha + \beta_1 \textit{Substantive initiative} + \beta_2 \textit{Symbolic initiative} \\ + \beta_3 \textit{Social activist pressure} + \beta_4 \textit{Visibility to end customers} + \gamma'X_i + \delta\Gamma_c + \varepsilon_i$$

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<sup>4</sup> The collapse occurred at 10pm EST, which was before North American and European stock markets opened leaving plenty of time for investors worldwide to respond on the day of the collapse (day 0).

<sup>5</sup> The first New York Times article reporting on the collapse can be found here: [http://www.nytimes.com/2013/04/25/world/asia/bangladesh-building-collapse.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/04/25/world/asia/bangladesh-building-collapse.html?pagewanted=all&_r=0). Last accessed October, 2014.

<sup>6</sup> The New York Times article reporting 348 deaths can be found here: <http://www.nytimes.com/2013/04/28/world/asia/rescues-and-arrests-in-building-collapse-in-bangladesh.html>. Last accessed October, 2014.

<sup>7</sup> These numbers were gathered from LexisNexis by searching “‘Rana Plaza’ AND Bangladesh” for all newspapers with duplicates not included. Weekends are excluded from the figure because the event-window can only include trading days.

where  $i$  indexes firms and  $c$  indexes countries. The key explanatory variables are *substantive initiative* (to test Hypothesis 1) and *social activist pressure* (to test Hypothesis 3). The second model also includes *visibility to end-customers* as a moderator interacted with both *substantive initiative* and *symbolic initiative* (to test Hypothesis 2).  $X_i$  represents firm-level control variables and  $\Gamma_c$  represents a country-level control variable.  $\varepsilon_i$  represents the error term, which captures the unobservable factors that may impact the six-day CARs. If these unobservable factors were correlated with a firm's decision to adopt a substantive CSR initiative or past activist pressure, then my results could be subject to endogeneity concerns. However, to bias my results, the factors captured in the errors must be unobservable to the researcher, correlated with the variables of interest, and *also* observable to investors within the six-day event window.<sup>8</sup> Because the Sustainalytics data is sold to investors, it is likely that the data used in these models is the same (or very similar) to the information available to the financial markets. The error term is robust to heteroscedasticity and clustered at the country-level for more conservative estimates.

### **Independent variables**

*Substantive vs. symbolic supply chain initiatives.* Sustainalytics identifies whether the firm has supply chain standards and an auditing program by searching the company website, sustainability reports, annual reports, PR news releases for relevant information, and through company feedback. To capture whether a firm has a *substantive initiative*, I created a binary variable that is coded as a “1” if the firm has released information indicating that they audit their suppliers regularly and “0” otherwise. Substantive initiatives are defined as regular auditing

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<sup>8</sup> For example, adopters of substantive initiatives may also have worse crisis management departments. Thus, it could be the quality of the crisis management department that is driving the negative relationship between the substantive initiative dummy and the six-day CAR. However, for that concern to hold, investors must be capable of assessing the quality of the crisis department within six days of the event.

programs, because supply chain management scholars have noted the importance of conducting regular audits as opposed to unique, or “one-off,” audits to ensure compliance is being continually met (e.g., Wieland and Handfield, 2013).

To capture whether a firm has only a *symbolic initiative*, I created a binary variable that is coded as a “1” if the firm has a set of written standards regarding suppliers’ working conditions, but does not regularly audit their suppliers to ensure compliance is being met. Social standards for supply chains can include standards for health and safety conditions, minimum living wages, maximum working hours, child labor, discrimination, etc. *Symbolic initiative* is coded as a “0” for firms that do not have a set of supply chain standards or if it has a program to regularly audit their suppliers. Finally, I created *no initiative*, which is coded as “1” if the firm lacks either a symbolic or substantive initiative. It is coded “0” if the firm has either type of initiative. To avoid perfect multicollinearity, the dummy variable *no initiative* is not included in the regressions. Because this data is based off of publicly available information that is aggregated and sold to investors, I am assuming investors can distinguish between firms with symbolic and substantive supply chain programs. However, this does not imply that other stakeholders (e.g., customers) will be able (or will bother) to distinguish between the two types.

*Visibility to end-customers.* To test my second hypothesis, that the decline in a firm’s stock return will be less severe for companies with supply chain programs when they are able to distinguish themselves from the industry, I include *visibility to end-customers* as a main effect in Model 1 and a moderator in Model 2. Apparel firms that are more visible to their end-customers will be better able to advertise their superior supply chain performance to their customers and therefore distinguish themselves. Researchers commonly assume that advertising expenditures proxy for visibility to customers (Arora and Cason, 1995; Beatty and Shimshack, 2010; Khanna

and Damon, 1999; Lyon and Shimshack, 2012). Unfortunately, advertising expenditures are not reported separately for companies in Compustat's global database. As such, I use Selling, General, and Administrative (SG&A) costs, which includes advertising expenditures, per dollar of sales gathered from the CompuStat dataset.<sup>9</sup> I take the natural log to adjust for skew.

*Activist attacks on supply chain social issues.* To test my third hypothesis, that the decline in a firm's stock return will be more severe for companies that were subject to stronger past pressure from activists on supply chain social issues, I include *social activist pressure*. *Social activist pressure* is measured as the number of times the firm has been targeted by activist groups or NGOs regarding social issues, such as unsafe working conditions or unpaid overtime, in their supply chains. Contentious actions such as boycotts, protest demonstrations, negative ads released by activists, and NGO sponsored reports (such as "Fatal Fashion") that released negative information specifically on the focal firm's suppliers' operations, are included.

This information is gathered from the Sustainalytics company reports, specifically from the text describing controversies the company was involved in regarding supply chain social issues. Sustainalytics gathers information on controversies in the areas of the environment, social issues, and governance from major news sources, such as Bloomberg, LexisNexis and others, and they distinguish between controversies related to the firms' direct operations and those related to their supply chain. Controversies captured in these metrics are not simply those that occurred in the previous year, but rather controversies that are still *relevant* to stakeholders. For example, the International Labor Rights Forum released a report in 2010 that Nike's

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<sup>9</sup> SG&A costs, however, also include employee costs such as pensions and salaries. To confirm that my results are not driven by this portion of SG&A costs, and rather are driven by the advertising expenditures, I run a robustness test in which I use an organization's number of employees gathered from CompuStat. The interaction between *substantive initiative* and *employees* is not significant, but the interaction between *substantive initiative* and SG&A expenditures does remain significant even when controlling for employees.

manufacturing of soccer balls still relied upon child labor. Because the use of child labor is still a concern to Nike stakeholders, Sustainalytics continues to include this as a relevant controversy in the company report. This metric is coded to exclude union disputes and strikes unless an activist group was specifically mentioned as being involved in disseminating information about the dispute, or was known to organize it.

Two researchers content coded the social supply chain controversies from the company reports. In the first round of content coding each researcher individually captured the number of attacks and campaigns against the firm. Then, discrepancies were identified, and after some discussion, each reviewer recoded any discrepancies. After the second round, an interrater reliability score of 94 percent was achieved. The remaining discrepancies were discussed and 100 percent consensus was reached.

### **Control variables**

*All other activist pressure.* As posited earlier, scrutiny from activists will increase to some extent for all firms within the industry after a catastrophe. As such, experience and knowledge of how to strategically handle activists' demands and campaigns will be valuable after a catastrophe (McDonnell and King, 2013). To control for experience separately from the likelihood that the company will be targeted more frequently (as captured by *social activist pressure* above), I include *all other activist pressure*. This measure is constructed similarly to *social activist pressure*, only it includes attacks regarding environmental issues, governance and corruption issues, and social issues not related to a firms' suppliers (i.e., issues regarding a firm's direct employees, the community, and customers). After the second round of coding, an interrater reliability score of 97 percent was achieved and the remaining discrepancies were discussed and 100 percent consensus was reached. The risk of these types of attacks is unlikely

to increase after the collapse because these issues were not evoked. Thus, it controls for the company's experience with activists.

*Supply chain reputation.* To capture a firm's overall past reputation as it relates to social issues in the supply chain, I use Sustainalytics' measure of the *magnitude* of the firm's supply chain social controversies. This is important to include because it may be correlated with a firm's decision to implement either a symbolic or substantive initiative and it may also influence the financial market's response to the collapse. This includes events excluded from the *social activist pressure* measure above, such as labor disputes at suppliers, fines from local regulators, or cases in which a supplier was found breaking local laws. When constructing this measure Sustainalytics analysts assess the magnitude of each incident related to a firm's supply chain labor practices. To do this, the analyst considers the following six characteristics of each event from the perspective of multiple stakeholders: the impact of the incident, its degree of exceptionality, its sphere of influence, its level of reoccurrence, the firm's response, and whether the firm has any management systems in place to help respond to the event.

This measure is given a "100" point score by Sustainalytics if the firm has not had any meaningful controversies. The company receives "80" points if the firm has had one or two minor controversies that might raise minimal concerns to stakeholders, either because the event is common to the industry or because the company responded effectively. The score will be "50" points if the company has either had one or two significant controversies or several minor controversies. Significant controversies have a high impact on stakeholders, such as a breach in local or international laws on repeated occasions. "20" points will be allocated to companies with one severe or several significant controversies. Finally, the score will be "0" if there is evidence of complicity in the most serious crimes. In this sample, no firms are assigned a "0" as this is

reserved for firms that are directly responsible for the most catastrophic events. To ease interpretation, I reverse code this variable to be 0–3, such that a “0” reflects firms with no controversies and a “3” reflects firms with one severe or several significant controversies. The controversies magnitude metric from Sustainalytics has also been used in Surroca, Tribo, and Zahra (2013).<sup>10</sup>

*Size.* Annual company sales is a common way to capture a company’s generic visibility to its stakeholders (e.g., Marquis and Toffel, 2014; Patten 2002). I measure sales in thousands of U.S. dollars based on data from Worldscope.

*Financial development.* Some researchers have noted that when using a multi-country event study it is important to consider each country’s financial market’s state of development and maturity (Campbell, Cowan, and Salotti, 2010; Park, 2004). As such, I include *financial development*, which is an index measuring the trustworthiness and efficiency of 62 financial markets gathered from the World Economic Forum.

Summary statistics and correlations are reported in Table 2.

[Insert Table 2 about here]

## RESULTS

Results are reported in Table 3. All independent variables, moderators, and control variables are lagged by one year. Focusing first on the control variables from the main effects model (Model 1), I find that firms with worse supply chain reputations (or, those with more controversies) are impacted significantly less negatively ( $\beta = 0.030$ ;  $p < 0.01$ ). This finding is consistent with my

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<sup>10</sup> Because *social activist pressure*, *social supply chain controversies*, and *all other activist pressure* are positively correlated (all with correlations greater than 0.5) I run a variance inflation factor (VIF) analysis after my main model to check for multicollinearity problems. The greatest VIF value is 3.41, which is well below the generally accepted rule of thumb limit of 10.

arguments that firms with a better CSR reputation will be harmed more severely after a catastrophe. However, the controversies metric does not necessarily capture a firm's willingness to make future improvements, because the controversies metric reflects past problems and not the firm's current commitment toward supply chain social issues.

The significant positive coefficient on *all other activist pressure* ( $\beta = 0.005$ ;  $p < 0.05$ ) suggests that experience dealing with activism does help firms preserve value after the collapse. The significant negative coefficient on *sales* ( $\beta = -0.004$ ;  $p < 0.01$ ) suggests that stock returns for larger firms were impacted more negatively by the collapse. The main effect of *end-customer visibility* is also negative and significant ( $\beta = -0.011$ ;  $p < 0.05$ ). Firms headquartered in countries that are more financially developed were impacted more negatively ( $\beta = -0.017$ ;  $p < 0.05$ ).

[Insert Table 3 about here]

Turning to the first hypothesis, that firms with substantive supply chain programs will be impacted more negatively after the collapse, I find a significant negative coefficient on the *substantive program* dummy variable ( $\beta = -0.020$ ;  $p < 0.05$ ). This coefficient indicates that having a program to regularly audit suppliers was associated with a 2.0 percent larger decrease in the firm's CAR as compared to firms that had no CSR initiative. This lends support to Hypothesis 1. The coefficient on *symbolic initiative* is negative, but not significant. Because firms with symbolic programs have failed to make substantial investments in improving their supply chain standards in the past (despite their public commitment to do so), it is not surprising that the financial markets did not take this as a signal that the firm would self-regulate.

The significant positive coefficient on the interaction between the *substantive initiative* dummy variable and *visibility to end-customers* in Model 2 ( $\beta = 0.022$ ;  $p < 0.05$ ) indicates that firms with substantive programs do realize a smaller decline in stock value when they are more

visible to their end-customers, which is consistent with Hypothesis 2. However, the coefficient on the interaction between the *symbolic program* dummy variable and *visibility to end-customers* is actually negative (but not significant), which is the opposite of what was predicted. This lends mixed support for Hypothesis 2, that CSR initiatives, regardless of quality, can help preserve firm-value for firms that are more visible to their end-customers. These results suggest that only firms with substantive CSR initiatives can distinguish themselves from the industry as being superior performers.

[Insert Figure 2 about here]

The interaction plot (Figure 2) shows that amongst firms with substantive initiatives (as represented by the line with square markers), the relationship between the CARs and end-customer visibility is actually positive. The significant coefficient on the interaction indicates that this relationship is significantly more positive than the seemingly negative relationship between the CARs and end-customer visibility amongst firms with no CSR initiative (as represented by the solid line with circular markers).

The significant negative coefficient on *social activist pressure* in Model 2 ( $\beta = -0.004$ ;  $p < 0.05$ ) lends support to Hypothesis 3, that firms subject to greater past activist pressure regarding supply chain social issues will realize a larger negative response after the collapse.

### **Robustness tests**

*Alternative stories.* There may be some concern that the selection of my sample includes firms that were not impacted by the collapse of Rana Plaza. It is possible that some firms captured in the GICS codes relevant to the apparel industry include firms that, for example, primarily manufacture in developed countries. Such firms would be less likely to be associated with the supply chain problems and would also be less likely to have substantive supply chain initiatives.

Thus, the negative coefficient on the substantive initiative dummy could be driven by the comparison of firms that were impacted by the collapse to those that were not related.

To address this potential issue, I run a robustness test in which I use *oversight of ESG* (environmental, social, and governance) issues instead of the *substantive* and *symbolic initiative* dummies. *Oversight of ESG* captures whether there is explicit responsibility for environmental, social, or governance issues at the board level. Assigning senior level responsibilities for ESG issues is critical to ensuring that CSR initiatives are actually implemented (Morgan, Ryu, and Mirvis, 2009), thus this metric can serve as a proxy for the likelihood that a firm will self-regulate following a catastrophe. This measure is also unlikely to be correlated with whether the firm was associated with the collapse, because oversight of ESG issues could include environmental concerns or concerns of the wellbeing of direct employees. Unfortunately, due to limited information on board level CSR activities, Sustainalytics only gathers this metric for large cap companies. Therefore, it is only available for 56 companies in my sample. Despite the limited sample, the coefficient on *oversight of ESG* is negative and significant ( $\beta = -0.014$ ;  $p < 0.01$ ), lending further support for Hypothesis 1. Table 4 presents the results of this robustness test for the variables of theoretical interest.

***Political Pressure.*** Earlier I asserted that the collapse was characterized purely by the increased threat of activism and public discontent and not by the increased threat of regulation. To confirm that this is the case, I run a robustness test including *political risk*, a country-level metric capturing the likelihood that new regulation can be passed. This metric captures the “extent to which a change in the preferences of any one actor may lead to a change in government policy” as measured by Henisz (2002: pg. 363) and has been used by many others (e.g., Jensen, 2008; Qi, Roth, and Wald, 2010). The main effect of political risk is slightly

negative ( $\beta=-0.002$ ), but insignificant, denoting no significant relationship between a country's overall risk of enacting regulatory changes and the financial markets' response to the collapse. If increased regulatory pressure was a concern after the collapse theory would suggest that the interaction between *substantive initiative* and *political risk* would be positive and significant. The coefficient is positive ( $\beta=0.007$ ), but not significant. These results suggest that the risk of political pressure was not a significant consideration after the collapse (see Table 4 for results).

[Insert Table 4 about here]

***Alternative windows.*** In robustness tests I also consider five-day (0, +4) and seven-day (0, +6) windows. Reassuringly, my results yield similar results (see Table 5).

***Confounding events.*** Another concern is the potential presence of confounding events. It is possible the existence of an event unrelated to the collapse is driving my results if: 1) the extraneous event occurred during the six-day "event window" following the collapse, and 2) the event impacted firms differentially based on the variables of interest after controlling for firm-level and country-level characteristics. To ensure that my results are not being driven by firms with unusually high or low abnormal returns potentially caused by confounding events, I simply omit firms in the top ten percent and bottom ten percent of CARs.<sup>11</sup> Reassuringly, my results yield similar results (see Table 5).

[Insert Table 5 about here]

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<sup>11</sup> Event-studies sometimes search for firm-level confounding events rather than drop the extremes. However, while there are many benefits to using a global sample, one downside is that the availability of information on firm-level financial announcements varies considerably from country to country. Attempting to account for firm-level confounding events might introduce new biases to my sample because of this variation in the availability of data. For example, it is likely that I would find more evidence of confounding events for firms headquartered in the United States than for firms headquartered in India. The issue of only partially accounting for confounding events has been noted for even single country event studies (Armitage, 1995), however adding additional countries to the study exacerbates the problem. Thus, dropping the extremes allows me to account for this without having to introduce new biases to my data.

## **DISCUSSION AND CONCLUSION**

In this paper, I presented theoretical reasoning and empirical evidence that financial markets react more severely to firms with substantive CSR initiatives than firms without initiatives after a catastrophe. I posited that firms with substantive CSR initiatives are expected to make future investments needed to repair the industry's aggregate reputation to mitigate harsh penalties from activists, customers, and eventually even regulators. I find that the negative effect of having substantive CSR is lessened when firms can distinguish themselves from the industry. I also find that the negative response is larger as firms are subject to greater past pressure from activists.

### **Contributions**

My findings contribute to work on the reputation commons problem, the value of CSR, and social movements. This study suggests there may be a limit to the value preserving nature of CSR. As discussed earlier, a reputation for behaving responsibly may act as reputational risk-management, or “insurance” after adverse events (Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009; Minor and Morgan, 2011). However, my results suggest that CSR initiatives may actually destroy firm-value after a catastrophe by signaling to investors that the firm will further self-regulate to remain in line with stakeholders' updated expectations for social responsibility.

Others have argued that one way to solve the reputation commons problem is for a subset of firms to self-regulate (e.g., Barnett and King, 2008). I posited that investors react more severely to firms with substantive CSR, because they anticipate that firms with substantive CSR will strategically decide to invest in costly self-regulation to mitigate the problem. Whereas firms without CSR initiatives will still benefit from those investments, without having to make any of their own – a free-riding problem. King, Lenox, and Barnett (2002) posit that a different way to mitigate the problem is for firms to distinguish themselves as “good” performers. My finding

that the negative effect of having substantive CSR is lessened when firms are more visible to end-customers lends empirical support to this theory.

Despite concerns that consumers cannot distinguish between substantive and symbolic CSR initiatives (e.g., King, Prado, and Rivera, 2012), I find that the benefits of having CSR only increase with visibility to end-customers for firms with substantive initiatives. This supports Godfrey, Merrill, and Hansen (2009) argument that “CSR engagement must be substantial enough to create a credible and reasonable declaration of unselfish intention” (pg. 428) for CSR to provide a credible signal of the firm’s benevolent intent to external stakeholders. This result suggests that investors believe that customers can distinguish between symbolic and substantive CSR initiatives, and only value the substantive ones.

Finally, my findings contribute to the social movement literature. This literature argues that activists are highly strategic when deciding which firms to target (e.g., Soule, 2009). However, the reputation commons research has previously argued that sanctions levied on firms within the industry are equal and that activists may boycott the entire industry or target firms arbitrarily (Barnett and King, 2008: pg. 1152). While a catastrophe does increase scrutiny upon the entire industry, some firms will realize larger sanctions from activists due to their strategic targeting. In this study, I find that firms subject to greater activist pressure do realize larger losses. This result suggests that investors anticipate that activists will impose additional sanctions to certain firms that are easy targets.

For managers, my findings reveal that investors might interpret substantive CSR initiatives as a willingness to go above and beyond after a catastrophe. There are many benefits to engaging in CSR, including the ability to attract more productive employees (Burbano, 2014) and the ability to exploit new markets for environmentally friendly products (Arora and

Gangopadhyay, 1995). Additionally, CSR can preserve firm-value after an adverse event. However, this study highlights one situation in which it might be costly.

### **Limitations and future research**

These findings do have limitations. I assume that investors interpret a firm's past commitment to implementing CSR initiatives as an indication that they will make future improvements. This methodology does not allow me to test whether these firms actually did make costly improvements to their supply chain standards after the collapse. Thus, it is possible that investors used substantive CSR initiatives as a signal of something other than a willingness to make future investments.

It is possible that rather than signaling future self-regulation, firms with substantive CSR may have lost more firm-value after the collapse because new information was revealed regarding the difficulties of managing supply chain conditions. For example, despite having a strong supply chain monitoring system, Wal-Mart's clothing was still found at Rana Plaza. The company's suppliers had subcontracted (in defiance of their contract) to a manufacturer in the building. If investors had previously valued substantive CSR initiatives (i.e., supply chain auditing systems) and the collapse revealed new information that caused them to devalue those programs, this could be an alternative explanation. However, it has long been understood that managing supply chain conditions is difficult and complicated. Just six months prior to the collapse a textile factory, which had recently been certified as having fire safety precautions in place (according to SA8000), caught on fire and killed over 300 employees (Walsh and Greenhouse, 2012). This event, and several others, revealed the imperfect nature of auditing textile suppliers. The collapse simply emphasized that supply chain monitoring systems are imperfect and are therefore in need of improvement.

Finally, the results of this study are limited to one catastrophe, which raises generalizability concerns. My research question hinges on studying catastrophes, which fortunately for society, do not occur frequently. Given the relatively new availability of data on the quality of CSR initiatives it is difficult to test whether similar reactions have occurred in response to other catastrophes in the past. Because the collapse featured only increased pressure from activists, and not increased pressure from public regulations, I would not expect a clear relationship between having a substantive CSR initiative and firm-value after a catastrophe that features both. The threat of future public regulation might preserve firm-value for firms with CSR (Kim and Lyon, 2011; Schnietz and Epstein, 2005), whereas the expectation for self-regulation can destroy firm-value for firms with CSR.

Despite these limitations, this paper makes a significant contribution to the literatures on the reputation commons problem, the value of CSR, and social movements. After a catastrophe, some firms may need to make costly changes to repair the aggregate industry reputation. This study emphasizes the need for future research to consider which firms will be expected to make those improvements when analyzing the value of CSR.

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## TABLES AND FIGURES

**Table 1. Country of headquarters**

Country	Firms	Percent	Country	Firms	Percent	Country	Firms	Percent
Australia	7	6.3	Germany	6	5.4	Spain	1	0.9
Brazil	5	4.5	Hong Kong	4	3.6	Sweden	1	0.9
Canada	3	2.7	Japan	11	9.9	Taiwan	4	3.6
Chile	1	0.9	Malaysia	1	0.9	Thailand	1	0.9
China	8	7.2	Mexico	2	1.8	Turkey	1	0.9
Colombia	1	0.9	Russia	1	0.9	United Kingdom	7	6.3
Finland	1	0.9	South Africa	6	5.4	United States	30	27.0
France	5	4.5	South Korea	4	3.6	<b>Total</b>	<b>111</b>	

**Table 2. Summary statistics and correlations**

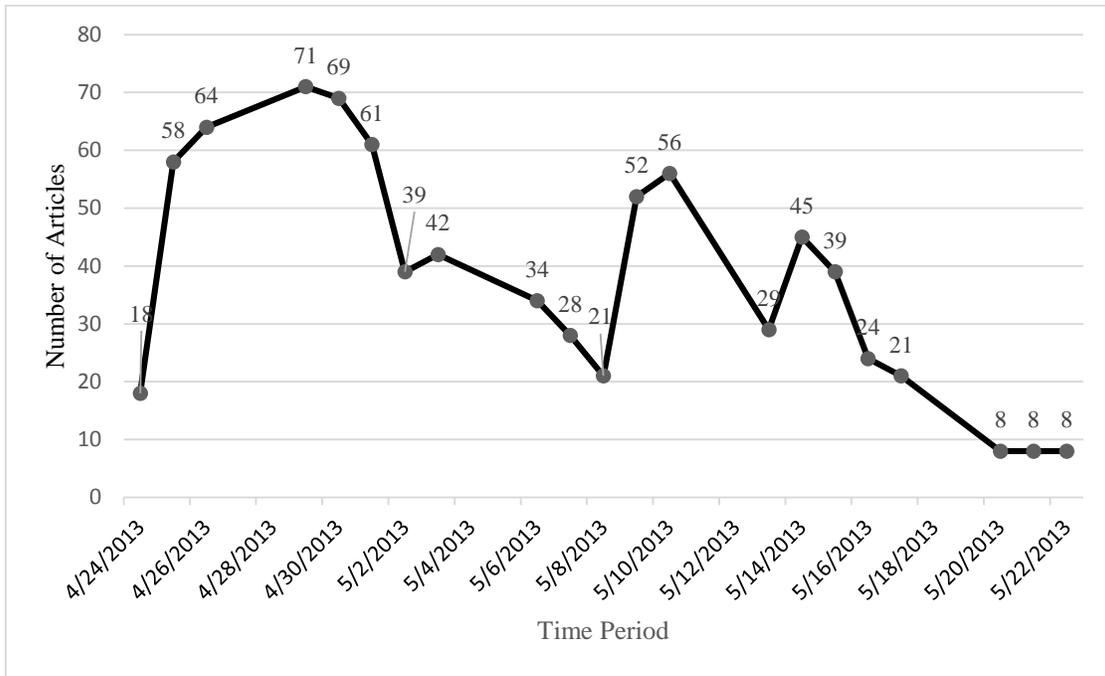
Variable	Mean	S.D.	Correlations										
			1	2	3	4	5	6	7	8	9	10	
1 6-day CAR	0.0	0.04	1.00										
2 Controversies	0.3	0.55	0.18	1.00									
3 All other activist pressure	0.9	1.65	0.13	0.55	1.00								
4 Ln sales	8.6	1.40	-0.08	0.45	0.38	1.00							
5 Financial development	4.9	0.49	-0.12	0.04	0.02	-0.04	1.00						
6 Dummy for no CSR initiative	0.4	0.48	0.00	-0.34	-0.34	-0.28	-0.17	1.00					
7 Dummy for a symbolic initiative	0.3	0.47	0.05	-0.12	-0.14	-0.13	0.10	-0.52	1.00				
8 Dummy for a substantive initiative	0.3	0.47	-0.05	0.47	0.49	0.42	0.07	-0.50	-0.48	1.00			
9 Social activist pressure	1.3	2.89	0.04	0.77	0.69	0.47	0.05	-0.32	-0.19	0.52	1.00		
10 Ln advertising expenditures	0.0	1.00	-0.14	-0.23	-0.24	-0.19	-0.39	0.45	-0.11	-0.35	-0.25	1.00	

**Table 3. Event study regression results**

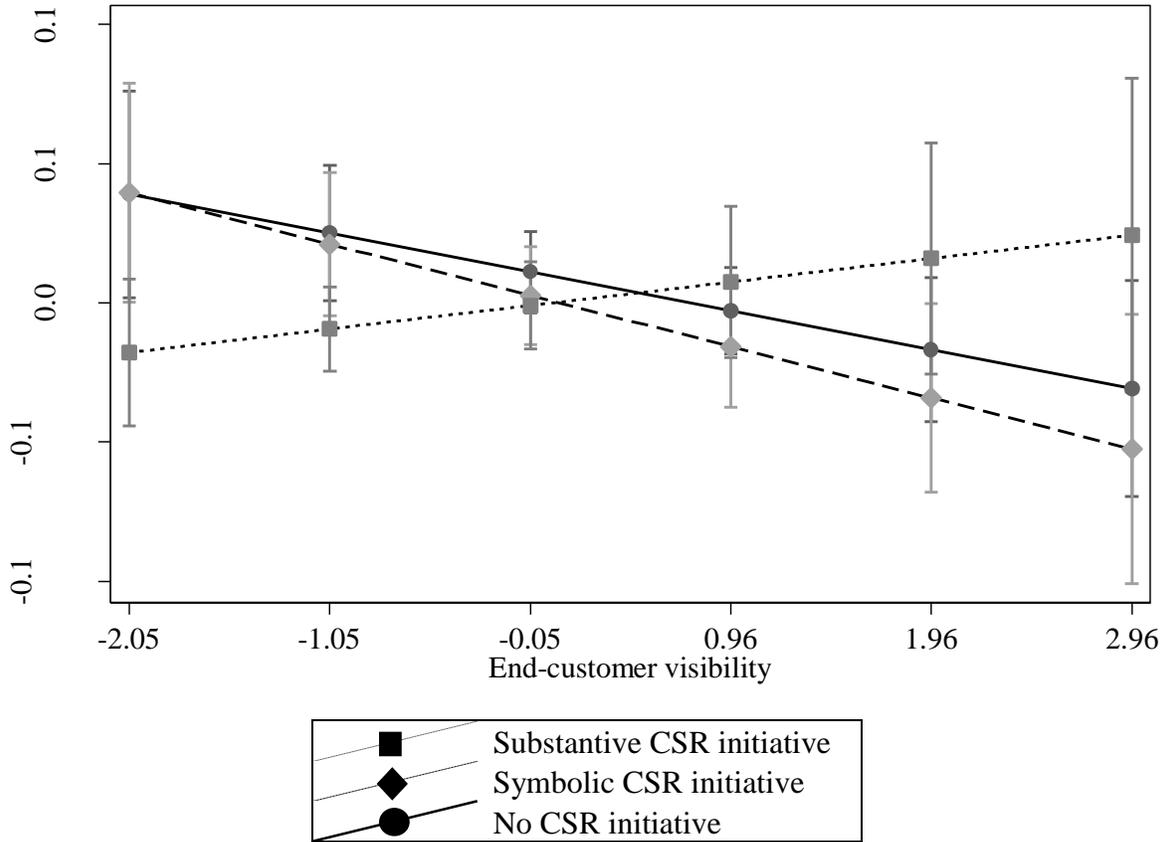
Dependent variable: 6-day cumulative abnormal return

Predictors	(1) Main effects	(2) Moderated effects
<i>Control Variables</i>		
Controversies	0.030** [0.010]	0.031** [0.009]
All other activist pressure	0.005* [0.002]	0.004+ [0.002]
Ln sales	-0.005 [0.003]	-0.005 [0.004]
Financial development	-0.017* [0.007]	-0.019* [0.007]
<i>Theoretical variables</i>		
H1: Substantive initiative	-0.020* [0.009]	-0.012 [0.008]
Symbolic initiative	-0.006 [0.008]	-0.008 [0.008]
H2: Social activist pressure	-0.004* [0.002]	-0.004* [0.002]
Customer visibility†	-0.011* [0.005]	-0.014+ [0.007]
<i>Moderator terms</i>		
H3: Symbolic initiative x customer visibility†		-0.004 [0.009]
H3: Substantive initiative x customer visibility†		0.022* [0.010]
Observations	111	111
R-squared	0.185	0.230

Robust standard errors in brackets, \*\* p<0.01, \* p<0.05, + p<0.10. † indicates variables that are standardized.



**Figure 1. Number of newspaper articles on Rana Plaza collapse**



**Figure 2. Interaction plot**

**Table 4. Robustness tests**

Predictors	<u>Oversight of ESG</u>	<u>Political Pressure</u>	
	Main effects	Main effects	Moderated effects
<i>Theoretical variables</i>			
H1: Substantive initiative		-0.017 [0.012]	-0.013 [0.013]
Symbolic initiative		-0.004 [0.009]	-0.003 [0.010]
H1 alt: Oversight of ESG†	-0.014** [0.004]		
H2: Social activist pressure	-0.004* [0.002]	-0.004+ [0.002]	-0.004+ [0.002]
Customer visibility†	-0.011** [0.003]	-0.013** [0.005]	-0.013** [0.005]
Political pressure†		-0.002 [0.004]	-0.004 [0.006]
<i>Moderator terms</i>			
H3: Symbolic initiative x political pressure†			0.007 [0.008]
H3: Substantive initiative x political pressure†			-0.005 [0.013]
Observations	56	103	103
R-squared	0.342	0.220	0.230

Standard errors clustered by country in brackets; \*\* p<0.01, \* p<0.05, + p<0.1;  
† indicates variables are standardized

**Table 5. Robustness tests continued**

Predictors	Alternative windows				Confounding events	
	5-day CAR		7-day CAR		Main effects	Moderated effects
	Main effects	Moderated effects	Main effects	Moderated effects		
<i>Theoretical variables</i>						
H1: Substantive initiative	-0.019*	-0.009	-0.021+	-0.013	-0.016*	-0.013
	[0.008]	[0.008]	[0.012]	[0.010]	[0.007]	[0.008]
Symbolic initiative	-0.006	-0.009	-0.014	-0.016	-0.008	-0.010
	[0.008]	[0.008]	[0.012]	[0.012]	[0.007]	[0.007]
H2: Social activist pressure	-0.004*	-0.004*	-0.003*	-0.003+	-0.004**	-0.004**
	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]
Customer visibility†	-0.012*	-0.014+	-0.014**	-0.016**	-0.007*	-0.010**
	[0.006]	[0.007]	[0.004]	[0.005]	[0.003]	[0.003]
<i>Moderator terms</i>						
H3: Symbolic initiative x customer visibility†		-0.006		-0.007		0.000
		[0.010]		[0.009]		[0.006]
H3: Substantive initiative x customer visibility†		0.024*		0.020*		0.012+
		[0.010]		[0.008]		[0.006]
Observations	111	111	111	111	88	88
R-squared	0.195	0.252	0.156	0.197	0.230	0.260

Standard errors clustered by country in brackets; \*\* p<0.01, \* p<0.05, + p<0.1;

† indicates variables are standardized