The Impact of Corporate Social Responsibility on Brand Sales: An Accountability Perspective

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ABSTRACT

Consumers are increasingly mindful of CSR when making purchase and consumption decisions, but evidence of the impact of CSR initiatives on actual purchase decisions is lacking. This paper introduces a novel, brand accountability-based framework of consumer response to CSR initiatives, which categorizes CSR efforts as "Corrective," "Compensating," or "Cultivating goodwill" actions. Leveraging a database of CSR press releases by leading CPG brands, the authors examine the effect of the different types of CSR announcements on brand sales. The findings suggest that CSR initiatives that genuinely seek to reduce a brand's negative externalities ("Corrective" and "Compensating") lift sales, while CSR actions focused on philanthropy ("Cultivating goodwill") can hurt sales. The authors propose two moderators – CSR reputation and CSR focus on environmental or social causes – and also a mechanism for these effects, which they examine under controlled experimental settings. The experimental results show that, conditional on CSR reputation, consumers perceive varying degrees of sincerity in the different CSR types, and that sincerity mediates the effect of CSR type on purchase intentions. Overall, the results suggest that consumers are more inclined to reward firms that directly reduce the negative by-products of their own business practices than to be impressed by public goodwill gestures.

Keywords: corporate social responsibility, sustainability, CSR reputation, brand sincerity, environmental initiatives, social initiatives.

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Corporate social responsibility (CSR) - defined as discretionary business practices and contributions of corporate resources intended to improve societal well-being (Korschun, Bhattacharya, and Swain 2014) - is increasingly present in consumer consciousness. As more consumers support brands that contribute to the greater societal good, companies have incentives to engage in some form of CSR (Cone Communications 2017; Hughes 2016). Effective CSR can enhance corporate perceptions, differentiate products, and reduce the impact of public relations miscues (Chernev and Blair 2015; Kang, Germann, and Grewal 2016; McWilliams and Siegel 2001). However, despite a stream of research that has documented various positive effects of CSR, a causal link between a firm's CSR activities and actual consumer purchase decisions has not been established. Thus, one goal of this research is to provide evidence of the effect of CSR initiatives on brand sales.

Another goal of this paper is to provide a categorization of CSR and an examination of the contingent effects of different types of CSR on brand sales. CSR typically spans a wide array of potential activities, including philanthropic community support, environmental initiatives, diversity promotion, employee support, changes to products and supply chains, and corporate governance issues. These activities have been classified in extant literature into categories such as philanthropic versus business practice (Homburg, Stierl, and Bornemann 2013), environmental versus product focused (Jayachandran, Kalaignanam, and Eilert 2013), or proactive versus reactive CSR (Wagner, Lutz, and Weitz 2009). The breadth of these categorization schemes, however, can complicate both the study and the efficient managerial deployment of CSR initiatives. We seek to provide structure to this variety by using an important, but understudied characteristic of CSR: the extent to which CSR addresses a brand's liability and thereby demonstrates accountability in consumers' minds.

Anecdotal evidence suggests that consumers care about brands being accountable for their actions. For instance, hoping to better understand what types of CSR activities consumers would prefer, the Coca-Cola Company recently tested a battery of potential initiatives using a series of consumer focus groups. These initiatives ranged from social to environmental, and from the purely philanthropic

(women's economic empowerment), to the seemingly apologetic (helping address obesity). In the end, the initiative that most clearly addressed and preempted the brand's own potential negative social and environmental impact (reduced water consumption) elicited the most favorable consumer response (Coca-Cola 2019). Likewise, a recent public survey about CSR found that a majority of respondents preferred that firms adopt business operations aimed at minimizing their own societal and environmental harm (Cone Communications 2017). The degree to which a brand's CSR efforts actually address any of its own negative externalities (i.e., harmful effects on society and the environment) may thus help predict consumer response and guide the management of CSR decisions (Heal 2005).

Using accountability as a basis to address negative externalities, we distinguish between three types of CSR engagement: *Correcting* for the potential negative societal or environmental impact of a brand's business operations by making changes to those operations, *Compensating* for the negative impact of a brand's business operations without making changes to those operations, and *Cultivating goodwill*¹ through pro-social acts that are not directly related to any negative impact of a brand's business operations. We argue that this conceptualization captures important and fundamentally distinct CSR-related concerns and expectations among consumers and covers the vast majority of CSR activities. Using this typology, we develop a framework and conduct one of the first large-scale examinations of the effect of different types of CSR on brand sales. We extend this framework and complement the secondary data analysis with experimental evidence that both replicates these results and explores the mechanism underlying the differential effect of CSR type on consumer response.

Our work contributes to the literature in three important ways. First, we provide a novel typology of CSR based on the underexplored concept of firm accountability, whereby firms take responsibility for the consequences of their operations (Dubbink, Graafland, and Liedekerke 2008). We develop our framework based on this typology in a consumer-centric manner, drawing on socio-psychological theory, invoking the role of responsibility and restitution in attitude change (Carlisle et al. 2012). This

¹ Throughout the paper we use the labels Cultivating goodwill CSR and Cultivating CSR interchangeably, for ease of exposition.

typology encourages greater integrity in the practice of CSR by highlighting the alignment of societal and business interests. It also provides more actionable managerial insights because it directly links CSR initiatives to firm actions and is more granular than previous categorizations (for instance, dual categorizations such as CSR focused on primary versus secondary stakeholders, or CSR focused on business practice versus philanthropy).

Second, to our knowledge, this paper represents one of the first attempts at leveraging field data to offer direct empirical support for the existence of an economically significant effect of CSR on brand sales (see Table 1). Although prior work has drawn valuable insights from CSR case studies, work that involves actual purchase behavior has been rare (see Ailawadi et al. 2014 and Inoue, Funk, and McDonald 2017 for exceptions). Findings from experimental studies suggest that CSR may lead to greater purchase intent and increased brand loyalty (Du, Bhattacharya, and Sen 2007), although a few behavioral studies also suggest that under certain conditions CSR can lead to negative attitudinal outcomes (e.g., Ellen, Webb, and Mohr 2006; Sen and Bhattacharya 2001). Moreover, an attitude-behavior gap caused by social desirability bias may exist, particularly in contexts that involve social and ethical issues (Auger et al. 2008; Peloza, White, and Shang 2013). Our focus on brand sales offers the benefit of performing a real-world, decision-based examination of how CSR shapes actual consumer response. Our findings are further nuanced by the inclusion of two moderators of the relationship between types of CSR initiatives and brand sales: a) the role of the CSR reputation of the firm, and b) the environmental versus social focus of CSR efforts.

Third, we use laboratory experiments to provide process evidence regarding the perceived sincerity of brand motives as a mechanism underlying changes in consumer purchase behavior associated with CSR initiatives (Becker-Olsen, Cudmore, and Hill 2006). Specifically, we examine the effects of CSR type on consumer purchase intention and the mediating role of perceived *brand sincerity*. Results from experiments largely support our findings obtained with brand sales data for the Corrective and

Compensating CSR and show that perceived brand sincerity mediates the effect of CSR type on purchase intention and CSR reputation moderates the mediation chain. Our framework is depicted in Figure 1.

To investigate the effect of CSR on brand sales, we collect CSR press releases issued by a comprehensive set of prominent CPG (consumer packaged goods) brands, documented in the CSRWire database as well as on brand websites between the years 2002-2011. These data contain the announcement date as well as the textual content of all CSR announcements made by these brands in this time window. We then collect detailed sales data from the Information Resources Inc. (IRI) consumer panel dataset for the brands that announced CSR initiatives, as well as a set of close substitute brands that did not engage in CSR. After merging the two databases, our sample includes a total of 55 brands that announced CSR initiatives and 194 brands that did not, spanning 21 different CPG product categories.² Our CSR event list contains 80 actual CSR initiatives (27 – Corrective actions, 19 – Compensating actions, 34 – Cultivating goodwill actions) that were announced by the corporate parents of the 55 focal brands.

We specify an empirical model estimated on the sales of the focal brands as well as those of peer brands from the relevant product categories, measured one year before and one year after the focal brands implemented CSR events. The results from our empirical analyses indicate that the type of CSR effort undertaken has distinct implications for brands engaging in CSR. While, on average, Corrective and Compensating CSR actions provide a boost to the sales of participating brands, Cultivating CSR actions lead to a slight drop in sales. This negative effect of Cultivating goodwill actions is in line with the behavioral literature that has documented, under certain conditions, a reduction in purchase intentions for firms that engage in CSR (Becker-Olsen, Cudmore, and Hill 2006; Sen and Bhattacharya 2001). Cultivating goodwill may reduce sales because it detracts resources that could be used to support the brand's primary stakeholders, such as customers and channel partners, and redirects them to external

 $^{^2}$ The ability to track weekly sales information at the local market level for each of these brands allows more granular causal inference - i.e., it enables us to adopt detailed controls for brand, market and time-specific influences driving brand sales, that may otherwise interfere with the inferred effect of CSR engagement.

constituencies that may not respond by purchasing the brand's products. At the same time, and consistent with these findings, the results obtained from our experiments suggest that Cultivating goodwill CSR actions are viewed as less sincere than the other two types of CSR.

In sum, findings from our analysis of brand sales, in conjunction with results from laboratory experiments, suggest that taking an accountability-based view of CSR may offer useful insights to managers looking to enhance the consumer impact of CSR actions. We next present our conceptual framework and hypotheses, followed by the description of the data, methods and results for the secondary data empirical analysis. We conclude with a description of the experiments, followed by a discussion of implications from our research.

CONCEPTUAL FRAMEWORK

The literature focused on the impact of CSR is vast and has evolved primarily in two separate streams: one focused on the financial consequences of corporate CSR (e.g., Kang, Germann, and Grewal 2016; Margolis, Elfenbein, and Walsh 2009), and one focused on how CSR impacts antecedents to consumer purchase behavior, including consumer attitudes and purchase intentions (e.g., Du, Bhattacharya, and Sen 2007; Luchs et al. 2010; Sen and Bhattacharya 2001). Most studies show a positive effect of CSR, although some authors identify conditions under which CSR has null or negative effects (Table 1).

There is less consistency in the type of CSR analyzed. CSR, whether measured at the brand or corporate level, encompasses actions that can pertain not only to products, employees, or business partners, but also to the community or special groups of stakeholders, as well as more general environmental or philanthropical initiatives (Mishra and Modi 2016). For instance, Homburg, Stierl, and Bornemann (2013) distinguish between business practice CSR, which targets the firm's primary stakeholders, and philanthropic CSR engagement, which targets the firm's secondary stakeholders. In turn, Jayachandran, Kalaignanam, and Eilert (2013), examine product-focused CSR actions and environmentally focused CSR actions. Other researchers differentiate between proactive CSR, in which

firms engage in CSR before consumers receive potentially negative firm information, and reactive CSR, in which firms conduct CSR to protect their image after reports of an irresponsible action (Wagner, Lutz, and Weitz 2009; Groza, Pronschinske, and Walker 2011). Perhaps because of the large variety of CSR initiatives that firms can undertake, very few papers, as illustrated in Table 1, attempt to comparatively assess the effect of different types of CSR.

An under-researched aspect of corporate social responsibility that is under increasing public scrutiny is the extent to which the costs of a firm's quotidian operations are passed on to the general population. Such costs include, for instance, waste, pollution, or using labor from developing countries with weak labor laws (Heal 2005). A categorization scheme that focuses on the firm's responsibility for varied externalized costs would help managers choose the appropriate type of CSR action from among a cornucopia of available options. This is all the more critical as managers face increased scrutiny of their firms' externalities from an environmental and social perspective.

The most useful categorization would be one that is actionable, in the sense that it both readily translates to specific actions and wields distinct effects on metrics helpful to managers. The extant literature is lacking on this latter dimension as well. Research on corporate CSR is often conducted using complex CSR indices aggregated at the corporate level (e.g., Luo and Bhattacharya 2009), while behavioral studies typically leverage metrics with lower external validity, such as laboratory participants' evaluations of fictional CSR initiatives (e.g., Ellen, Webb, and Mohr 2006). We seek to tackle both shortcomings in the literature by proposing a categorization based on the notion of *firm accountability* and by examining the impact of this categorization on brand sales. We do so after carefully surveying the literature and noticing that in the few instances where a negative effect of CSR was documented, it was because consumers did not find the CSR actions to be meaningful. For instance, Becker-Olsen, Cudmore, and Hill (2006) found that companies hoping that their sales would improve as a result of their efforts to combat homelessness or domestic violence find instead that purchase intentions

for the company's products decrease. The authors attribute this effect to consumers being skeptical that the firm sincerely seeks to make a positive change.

Accountability in CSR represents firms' acknowledgement that their business operations create negative externalities, which may include pollution, waste generation, or downstream consumer health issues. While these externalities may vary, they do constitute a liability that consumers may expect firms to correct by taking specific actions (Alhouti, Johnson, and Holloway 2016).

First, to directly reduce its negative impact on society or the environment, a firm may adopt changes to its business operations. Examples include product or packaging modification, responsible ingredient sourcing, ethical labor practices, or expansions to the existing product line to cater to consumers at the bottom of the pyramid. Alternatively, a firm may choose to make philanthropic or service contributions aimed at offsetting its negative externalities without changing its business operations (e.g., donations to a cause benefiting stakeholders negatively affected by the brand, clean-up efforts, in-kind donations). Finally, a firm may engage in philanthropic activities unassociated with its negative externalities. Such activities may be intended to engender consumer goodwill (e.g., public relations campaigns, scholarships, endowments). Drawing from these three possibilities, we propose a typology of Corrective, Compensating, and Cultivating goodwill CSR.

Correcting, Compensating, and Cultivating Goodwill CSR Activities

Corrective CSR is a form of CSR whereby a brand attempts to minimize its negative impact on society or the environment via actual changes to its products or business operations. For example, a bottled water brand may reduce the amount of plastic used in its bottles, or a retail brand may work on providing more favorable working conditions for its labor force. We argue that explicit changes to a brand's products/operations targeting reduced societal harm represent, in consumers' minds, an acceptance of accountability along with restorative action (Dutta and Pullig 2011). Corrective CSR actions share similarities with Porter's "Shared Value" concept wherein companies find business opportunities in social problems (Porter and Kramer 2019). Corrective CSR, however, has the distinct

goal of minimizing one's harm to society, rather than the deliberate search for a business opportunity within an existing social problem (generally not of the firm's making).

In contrast, *Compensating CSR* involves initiatives whereby a brand addresses its negative externalities "indirectly" (i.e., no actual changes to its products or business practices occur). Compensating CSR initiatives thus represent an implicit acceptance of accountability with attempted redress (e.g., charitable giving or volunteering). For example, a bottled water brand may donate money to plastic recycling programs. While Corrective and Compensating CSR actions are similar in their implicit acceptance of firm accountability for the negative externality, a key difference is that in the latter case there is no direct restitution offered in the form of actual product or business practice changes. Nonetheless, research in interpersonal relationships demonstrates that an apology without restitution is more effective than no apology at all (Carlisle et al. 2012).

Finally, when engaging in *Cultivating goodwill CSR*, brands do not address their negative externalities, but instead, offer support for one of an endless variety of unrelated good causes. In this case, brands make no strides toward the acknowledgment of responsibility for any negative externality. Many philanthropic efforts may fall into this category. For example, a bottled water brand may donate money to literacy programs. Although the benefiting cause may be worthwhile, consumers may see these CSR initiatives as a failure by firms to acknowledge any liability arising from their operations. We expect that consumers may view such initiatives as insincere and potentially as a waste of corporate resources (Lantos 2001).

The three types of CSR that we study in this paper can target both primary and secondary stakeholders, and encompass both business practice and philanthropic CSR engagement (Homburg, Stierl, and Bornemann 2013). At the same time, there are clear theoretical differences between the three types of CSR; for instance, Corrective and Compensating initiatives are rooted in separate strategies outlined in the theory of image restoration (Benoit 1997). Categorizing a CSR initiative into one of the three types involves answering two questions: First, does the CSR initiative address the brand's own

social or environmental harm by making changes directly to the company's business operations (i.e., product, supply/distribution network, labor practices)? If so, it is a Corrective action. If the initiative does not, then the next question is: Does the CSR initiative address a social or environmental harm for which the brand's business operations are perceived as bearing responsibility? If so, then it is a Compensating action. On the other hand, if it is addressing a social or environmental issue for which the brand bears no clear responsibility and involves no changes to its product nor business operations, then it is a Cultivating goodwill action.

The Effect of Corrective, Compensating and Cultivating Goodwill CSR on Brand Sales

Consumers often assess a brand and its actions as they would other members of society (Aggarwal 2004). As with interpersonal relationships, consumers often evaluate brands positively if they conform to accepted behavioral norms, and negatively, if they violate these norms. Irresponsible brand behavior toward society or the environment represents one form of social norm violation that consumers are likely to disapprove of (Aaker, Fournier, and Brasel 2004; Jayachandran, Kalaignanam, and Eilert 2013).

Just as consumers can punish brands for violations of social norms through negative evaluations, attitude, or behavior towards a brand, they can also forgive brands that take accountability for the harm that they may cause. The psychology literature explains the link between accountability and forgiveness. Apology, which incorporates an acknowledgment of violated norms, particularly if coupled with restitution, which involves restorative action and remediation, has been shown to promote forgiveness (Carlisle et al. 2012). In the same vein, consumers are more likely to favorably evaluate brands that acknowledge their own shortcomings and perform restorative actions. The literature on brand crises also provides support for this assertion. Restorative actions taken during brand crises that involve both an acknowledgment of the problem and plans for remedial actions can be effective at repairing brand attitudes (Dutta and Pullig 2011). Moreover, recent research suggests that consumers understand if the

CSR efforts of the firm are focused on its own value chain, and they are more likely to purchase from such firms than from their peers whose CSR is external to the value chain (Buell and Kalkanci 2021).

These arguments suggest that Corrective CSR actions, which convey the highest level of accountability to the firm stakeholders, will be received most positively by consumers. Likewise, there is also some level of implicit accountability in Compensating CSR, although not as direct as that advanced by Corrective actions. While Compensating CSR may provide a weaker form of restitutive action than Corrective CSR, we still expect Compensating CSR to increase sales.

In contrast, consumers may view Cultivating goodwill CSR as disingenuous or wasteful even if the cause supported by the firm is worthwhile. They may perceive this type of initiative as an attempt to "check a box," and thereby as an insincere approach to CSR that fails to acknowledge the potentially negative consequences that the firm's products or operations may have on society. Prior literature has found some support for this assertion, as CSR initiatives can lead to reduced purchase intent, or other negative attributions when consumers believe that the initiatives come at the expense of investments that could improve corporate abilities (e.g., Sen and Bhattacharya 2001). In addition to consumers, retailers are also important stakeholders who may view CSR initiatives as redirecting resources that could have been used to more directly support an increase in sales, such as price or display promotions. Moreover, both consumers and retailers may believe that corporate philanthropy is driven more by managers' desire to enhance their personal reputations, than by stakeholders' interests (Wang, Choi, and Li 2008). In sum, stakeholders may feel, at the margin, disenfranchised by initiatives meant to cultivate the goodwill of unrelated groups, resulting in a negative impact on sales. Formally, we expect that,

H1: Corrective and Compensating (Cultivating) CSR initiatives have an overall positive (negative) effect on consumer purchase intentions, and consequently, on brand sales.

The Moderating Effect of Firms' CSR Reputation and CSR Focus on the Relationship Between CSR and Brand Sales

Extant CSR literature can guide us in establishing boundary conditions for the effects hypothesized in H1. We focus on two factors that emerge from the literature as likely to have a role in determining the

effectiveness of CSR initiatives. First, firms' CSR reputation is particularly important in shaping consumers' reactions to a firm's CSR activities. In addition to establishing expertise and increasing the credibility of CSR initiatives, firms' CSR reputation can influence product evaluations and, in instances of product harm, can temper consumers' negative evaluations of the brand (Klein and Dawar 2004). Second, the focus of CSR (environmental or social) is one of the fundamental characteristics of CSR highlighted in the literature (Dahlsrud 2008). While initiatives in both domains have been found to have a positive impact (e.g., Anselmsson and Johansson 2007; Du, Bhattacharya, and Sen 2007), their relative contribution to the success of a CSR initiative has not been clearly established. Additionally, by focusing on the interaction between CSR focus and type, we provide managers with a 2x3 matrix of possible CSR initiatives that can help them adopt a CSR outreach that is most appropriate for their firm.

CSR Reputation. The expectation disconfirmation paradigm suggests that consumers' responses to CSR initiatives will be contingent upon their assessment of a firms' CSR reputation, defined as stakeholders' assessment of the past performance and success of firms' CSR activities (Miller, Eden, and Li 2020). Favorable firm reputations can influence the actions of firms' stakeholders including consumers (Fombrun and Shanley 1990). Moreover, brand activities that are congruent with prior CSR reputation are less likely to change consumer brand perceptions, and may have little effect on consumer response (Olsen, Slotegraaf, and Chandukala 2014). Consequently, we expect the effects of all three types of CSR initiatives on sales, whether positive or negative, to be smaller in magnitude for firms with high CSR reputations, as these initiatives confirm what consumers already believe.

Conversely, CSR actions from firms with lower CSR reputations may come as a surprise to consumers. When firm actions are inconsistent with existing knowledge, consumers engage in deeper processing of the new information, which may make them question the sincerity of brands' motives for engaging in these efforts (Yoon, Gurhan-Canli, and Schwarz 2006). Consumers may be particularly suspicious of the sincerity of lower reputation brands that engage in Cultivating CSR actions. Such actions may be perceived as perfunctory (e.g., Ailawadi et al. 2014), which can magnify the negative

effect that they have on sales. In contrast, Corrective and Compensating CSR actions, which invoke a certain level of accountability, may provide a positive disconfirmation of consumers' initial perceptions of low CSR reputation firms, and further enhance their brand sales. Indeed, research on brand crises and service failures suggests that demonstrating accountability after negative incidents is particularly effective at improving a consumer's brand perceptions (Dutta and Pullig 2011). We thus expect that, all else equal, CSR initiatives announced by brands with more favorable CSR reputations are relatively less likely to impact brand sales than initiatives from brands with less favorable CSR reputations.

H2: CSR reputation mitigates the effect of CSR initiatives on sales as follows:

a) Higher CSR reputation reduces the positive effect of Corrective as well as Compensating CSR initiatives on brand sales.

b) Higher CSR reputation reduces the negative effect of Cultivating CSR initiatives on brand sales.

CSR Focus. Our proposed typology describes the *actions* taken by a brand, which may allow it to take accountability for its negative externalities. However, a brand may go about Corrective, Compensating, and Cultivating CSR in a myriad of ways. One of the most frequently discussed dimensions of CSR is the domain in which CSR is implemented: environmental or social (e.g., Ailawadi et al. 2014; Becker-Olsen, Cudmore, and Hill 2006; Du, Bhattacharya, and Sen 2007). Prior literature has not offered a clear comparison between the efficacies of CSR in these two domains, but it would be helpful for managers to know whether one of the two demonstrates accountability for the brand's negative externalities more effectively, particularly in conjunction with the three types of CSR.

We argue that environmentally focused CSR initiatives will have an enhanced effect on brand sales for two reasons. First, consumers tend to place greater relative importance on environmental concerns than on social issues (Oberseder, Schlegelmilch, and Murphy 2013). As the media regularly highlights the liability of firm operations for harm done to the environment, consumers are increasingly aware of these issues. For instance, the 2017 Carbon Majors Report found that a mere 100 companies generate 70% of global greenhouse gas emissions and received significant media coverage (Del Valle 2018). As a result, firms are finding that it is increasingly necessary to address such liabilities (Dans

2018). Academics agree; for instance, Kotler (2011), writing on the occasion of the 75th anniversary of the *Journal of Marketing*, centers his article on the growing importance of the environmental imperative to marketing theory and practice. Thus, environmental CSR is important to stakeholders, relatively objective, and typically noncontroversial.

Second, while social CSR initiatives have the potential to create a favorable image among subsets of stakeholders, these initiatives are perceived as being less focused, less verifiable, and thus more prone to agency costs (Mishra and Modi 2016). Moreover, recent research shows that consumers and shareholders do not always agree with the direction of social CSR, with some viewing such actions as an alienating form of activism (Burbano 2021; Bhagwat et al. 2020; Hydock, Paharia, and Blair 2020). Therefore,

H3: Having an environmental rather than a social focus in a CSR initiative enhances the positive effect of Corrective and Compensating CSR initiatives and mitigates the negative effect of Cultivating CSR initiatives.

The Mediating Effect of Brand Sincerity on the Relationship between CSR and Consumer Behavior

In this section, we propose a mechanism for the predicted effects and explore the mediating role of perceived sincerity, a process we later test in controlled laboratory experiments. Perceived sincerity is the extent to which consumers perceive a brand as caring and genuine in its actions (Hoeffler and Keller 2002). Greater perceived sincerity in CSR can lead to higher brand evaluations, purchase intent, and brand loyalty (Alhouti, Johnson, and Holloway 2016; Yoon, Gurhan-Canli, and Schwarz 2006). In the domain of service failure, demonstrating accountability and taking reparative action are viewed as sincere gestures needed to improve customer satisfaction and repurchase intention (Tarofder et al. 2016). In our typology, Corrective and Compensating CSR actions signal a brand's willingness to take responsibility for its impact on society and the environment. As discussed before, this may entail making changes to products, supply chain, manufacturing operations, etc., or contributing time, money, or other resources. Such efforts directly acknowledge fault, and may be costly and difficult to implement, and are thus unlikely to be taken lightly by consumers. In contrast, research suggests that when a brand does not sufficiently redress the harm caused by its actions, consumers are likely to perceive its CSR actions as insincere (Alhouti, Johnson, and Holloway 2016). In the absence of an acknowledgment of accountability, consumers may discount the good deeds associated with Cultivating CSR activities or even be cynical of them. The CSR activities may backfire, leading to negative evaluations of the company and reduced purchase intentions or behavior. We thus predict that Corrective and (to a lesser degree) Compensating actions will be perceived as relatively more sincere than Cultivating actions, and that this greater perceived sincerity will result in a more favorable consumer response, mediating the effect of CSR on purchase intentions.

We also expect that brand CSR reputation will moderate the aforementioned mediation chain. In line with our earlier arguments, brands with higher CSR reputations are likely to be viewed as simply fulfilling expectations by engaging in CSR, and acting relatively sincerely regardless of CSR type (Gilbert and Malone 1995). Thus, attitudes towards high CSR reputation brands are ultimately less likely to be affected when these firms engage in any new CSR activities. In contrast, when brands with weaker reputations engage in CSR, consumers are likely to think more deeply regarding their motives, leading to greater relative differences in perceived sincerity across CSR types (Yoon, Gurhan-Canli, and Schwarz 2006). Thus, for lower reputation brands particularly, we expect Corrective and Compensating CSR to be seen as more sincere than Cultivating CSR, a difference that should influence purchase intentions accordingly. More formally,

H4 a) Perceptions of brand sincerity mediate the effect of CSR initiatives on purchase intentions.H4 b) CSR reputation mitigates the mediation mechanism that indirectly links CSR initiatives to purchase intentions through perceptions of brand sincerity.

EMPIRICAL EXAMINATION OF THE IMPACT OF CSR INITIATIVES ON BRAND SALES

We use two approaches to test our hypotheses. First, we use a regression model estimated with panel data with fixed brand effects to examine the impact of CSR initiatives on brand sales. Second, we use experiments to document the process that underlies these effects and to show that brand sincerity

mediates the effects of CSR actions on intentions of purchase. We begin by presenting the data, method, and the results of the brand sales model, and we follow with a summary of the experiments that demonstrate the mediating role of brand sincerity.

Data Sources to Analyze the Impact of CSR on Brand Sales and Sample Construction

We leverage two main sources of data to examine the impact of CSR on brand sales: the Corporate Social Responsibility Newswire service (CSRWire.com) to extract the CSR announcements, and the Information Resources Inc. (IRI) dataset to obtain brand sales before and after these announcements. CSRWire contains a searchable CSR news archive of more than 20,000 news items including corporate- and brand-level CSR-related press releases, CSR reports, and other event announcements dating back to 1999. Through CSRWire, companies disseminate CSR information to a diverse global audience via a myriad of websites and portals including Google, Reuters, LexisNexis, and Bloomberg (Griffin and Sun 2013; CSRWire 2018). Data from CSRWire have been previously used to study the impact of CSR (e.g., Du, Bhattacharya, and Sen 2017; Gopaldas 2014).

We obtain data on brand sales from the IRI academic dataset (Bronnenberg, Kruger, and Mela 2008 provide a detailed description of the dataset). The IRI dataset comprises weekly aggregate storelevel product sales as well as consumer panel data for 30 consumer packaged goods categories. The dataset provides a rich time series of sales information at the UPC code level for various brands and across markets (designated market areas, or DMAs). A vast body of research has employed the IRI dataset to study the impact of marketing actions on brand sales (e.g., Ailawadi, Ma, and Grewal 2018; Bronnenberg, Dube, and Mela 2010). We begin by tracking CSR initiative announcements from brands in the IRI dataset in the time period of our data, from 2001 to 2011. We first record the date of the CSR press releases drawn from CSRWire and the CSR/Sustainability initiative press announcements from brand websites in this time period. Our CSR announcements were made between 01/2002 and 12/2011 and are listed in Web Appendix A. Archival searches for these announcements revealed that about 95% of them were prominently featured and discussed in major local and national newspaper outlets on the same date as the one reported in the CSR wire. This suggests that there was a reasonable level of awareness for the events in our sample; at the same time, having events with lower coverage would work against the effects we hypothesize, making our tests more conservative.

Our analysis sample includes 80 CSR initiatives across 55 brands, 21 product categories, and 48 DMAs. The classification of CSR announcements as Corrective, Compensating, or Cultivating CSR was done by a panel of independent judges (N = 378), who each categorized a small random subset of these announcements by applying our definitions to the text of the press releases, with a high degree of interrater reliability (Intraclass Correlation Coefficient= .80).

For each brand, we use weekly brand sales aggregated (across stores) to the DMA level as our outcome of interest. We extract sales information from the IRI dataset for the brands that have announced a CSR initiative for the twelve-month period before and the twelve-month period after the CSR announcement. We also sought to obtain data on a set of appropriate control brands. Among the brands in the IRI database that belong to the same category as the focal brands we kept all brands that, in descending order of market share, made up for 70% of the focal brand's market share. From this control group of brands, we exclude the ones that announced a CSR initiative during the year before and the year after the focal brand announced a CSR action.³ Thus, our control group size ranges from three brands (in the facial tissue category) to 18 brands (in the cereal category), with an average size of 5.15 control brands (across all categories).

Next, for each of the 80 CSR announcements, we choose an observation window of 104 weeks of weekly sales activities (52 pre- and 52 post-announcement weeks) for both focal and control brands in the product category. While 52 weeks is sufficient time for the sales effect of brands' CSR announcements to have manifested, the focus on a relatively tight window helps mitigate the influence of unobserved time-varying drivers of sales changes for both focal and control brands. We find that on average, 65% of brands that form our control group also ended up announcing CSR initiatives at a later

³ Our results are also robust to including control brands that did not engage in CSR in the two years immediately preceding the focal brand's CSR announcement date.

date (i.e., at least twelve months after our post-announcement observation window ends). This pattern is perhaps intuitive, and to some extent also showcases the increasing extent to which the relatively prominent CPG brands that are part of our dataset opt into engaging in CSR.

Our framework includes two moderators: *CSR reputation* and *CSR focus*. The CSR focus on social versus environmental issues can be easily categorized from the text of each announcement. The focus of CSR is distinct from CSR type and our sample includes observations for each combination of focus and type. Specifically, for environmentally focused CSR we observe 14 Corrective, 13 Compensating, and 8 Cultivating initiatives, and for socially focused CSR we observe 13 Corrective, 6 Compensating, and 26 Cultivating actions.

To measure CSR reputation, we return to CSRWire and construct an index based on the recorded total number of instances over the one-year pre-CSR announcement window during which each of the brands in our analysis sample either: (a) relayed sustainability-related information – but *not* new CSR efforts/engagements - on CSRWire (e.g., "Seventh Generation Releases Annual Corporate Consciousness Report"), or (b) was featured in a sustainability-related report showcased by its corporate parent on CSRWire (e.g., "Kimberly-Clark Receives Perfect Score on 2011 Corporate Equality Index", "Miller Coors Launches Corporate Responsibility Web Site"). We find that this index offers sufficient variability across the focal brands in our sample, having a mean of .98 announcements and a standard deviation of 1.87.

Our research design exploits two useful sources of variation - (a) while some brands within a product category announce CSR initiatives, others do not, (b) CSR announcements in our data are spread over a wide time horizon (vs. being clustered over a narrow time window). The variation in (a) helps us account for possible differences between brands that announce CSR initiatives and ones that do not. Alternatively, the sizable spread offered by (b) helps us partially mitigate the influence of broader macroeconomic trends (such as the recession of 2008) that may have otherwise played a role in

influencing brand sales pre- and post-intervention over a few specific years (Srinivasan, Lilien, and Sridhar 2011; Van Heerde et al. 2013).

We use a host of other data sources to construct control variables and instruments to account for endogeneity. For each of the brands in our dataset, we collect information on - a) product prices (from IRI), b) whether the product is on display - categorized into none, minor or major displays (from IRI), c) distribution intensity (number of stores carrying the brand, from IRI), d) monthly advertising spending (from Kantar Media's Ad\$pender database) and e) press coverage (from RavenPack). To construct the press coverage control variable, we identify the corporate parent of each brand and download all the press releases of this corporate parent available in RavenPack for the same period for which we collect brand sales data. As RavenPack provides a sentiment score for each press release, we separate them into positively- and negatively-valenced announcements. Further, we include both the count of positively and negatively-valenced announcements to proxy not only for the extent of press coverage during our sample period but also for the sentiment that underlies that coverage (see Warren and Sorescu 2017a for a description of RavenPack and the sentiment scores associated with the press releases). Finally, we use multiple data sources to construct instruments that account for (1) the endogeneity of the type of the CSR decision and (2) the endogeneity of the marketing instruments used as controls in our main brand sales model. We describe the instruments and their operationalization in the next section.

Identification Strategy

We first describe how we address the potential endogeneity associated with the choice of the type of CSR, followed by a description of our controls for the endogeneity of the marketing mix instruments used in the sales model. In Web Appendix B, we present the results of an additional robustness steps that assesses the potential importance of unobserved confounders in explaining our effects, by following the approach proposed by Oster (2019).

Accounting for the endogeneity of the type of CSR initiative. To accurately assess the impact of CSR initiatives on brand sales we need to control for the endogeneity of the type of CSR initiative undertaken

by brands. Specifically, brands choose which type of CSR initiative to implement, and this choice could be driven by unobservable characteristics, leading to biased estimates for the effects of CSR on sales. To account for this choice, we estimate a multinomial logit model where the dependent variable has four levels - one for each type of CSR initiative, and one for the choice to not do any CSR. The dependent variable takes a value of 0 for both the brands that did not announce CSR initiatives at all, as well as for focal CSR-announcing brands but only during the weeks preceding the CSR announcement. In the post-CSR announcement window for the focal brands, the dependent variable is coded as a categorical variable designating the type of CSR action undertaken (Corrective, Compensating or Cultivating). We use this model to obtain a set of three generalized Inverse Mills ratios that will be included in the brand sales model as controls for this particular type of endogeneity. This follows the approach outlined in Wooldridge (1995) and Bourguignon, Fournier, and Gurgand (2007), which has been used in marketing applications by Atefi et al. (2020), Fang et al. (2016), and Homburg, Vollmayr, and Hahn (2014).

In order to estimate this model in a manner that does not exclusively rely on the functional form of the chosen selection equation, we need exclusion restrictions, in the form of one or more variables that significantly impact the choice of conducting CSR but do not directly impact sales. We identified *three* such variables: the Product Responsibility Score (PR_Score) and the Innovation Score (*Innovation Score*) from Refinitiv's EIKON database and a variable that denotes the proportion of new products introduced by the brand that contain CSR claims, *but in product categories other than the focal one* ($Prop_CSR\ claims$) from Product Analytics. We describe in Table 2 the construction of these variables and explain their validity.

The utility of choosing a CSR initiative of type j by brand i at time t is given by: $U_{ijt}=V_{ijt}+\varepsilon_{ijt}$, where V_{ijt} is a deterministic component and ε_{ijt} is a random error. Using the multinomial logit model and assuming that the random error is independently and identically Gumbel distributed, the probability that the CSR initiative of type j is chosen by brand i at time t is given by:

$$P_{ijt} = \frac{exp(V_{ijt})}{1 + \sum_{j=1}^{3} exp(V_{ijt})}$$
(1)

where: $V_{ijt} = \alpha_{0j} + \alpha_{1j}PR_Score_{it} + \alpha_{2j}Innovation_Score_{it} + \alpha_{3j}Prop_CSRclaims_{it} + \alpha_{4j}Advertising_{it}$ + $\alpha_{5j}Brand asset_{it}$, j =1,2,3 refers to the three types of CSR (Corrective, Compensate, and Cultivating goodwill), *i* refers to the brand, and *t* to the month of measurement, which spans twelve months before a CSR initiative was announced and twelve months after. *Brand_asset* is the BAV Y&R overall measure of brand equity (measured at the annual level), and *Advertising* denotes brand-level advertising expenditures (measured at the monthly level). Thus, for each brand that has undertaken a CSR initiative and for each peer brand in its product category we have 24 months of advertising data and at least 2 years of brand asset and CSR score data (contingent upon each brand reporting sales in each particular DMA), resulting in an unbalanced panel over which the model is estimated. Using the choice probabilities predicted from Equation 1, we compute a set of three generalized Inverse Mills ratios (one for each CSR

type *j*) of the form:⁴ $IMR_{ijt} = 3 * \ln(P_{ijt}) + \sum_{j' \neq j} \left[P_{ij't} * \frac{\ln(P_{ij't})}{1 - P_{ij't}} \right]$ to include in the outcome equation

governing the sales response of CSR (which we discuss subsequently).

Accounting for the endogeneity of marketing instruments used as control variables. In addition to accounting for the endogeneity of the decision to implement a CSR initiative, we also account for the endogeneity of the marketing mix variables included as controls in the model of brand sales. To do so, we use a 2SLS approach. Specifically, we specify an additional equation for each marketing mix variable and model these variables as a function of all fixed effects and exogenous variables from the sales equation and an instrument for the brand's marketing mix variable. We follow Van Heerde et al. (2013) in using as instruments weighted averages of the marketing mix of brands that do not have products in the same narrow product category but belong to the same industry. The marketing mix variable of the focal brand is likely to be correlated with that of these brands, because the same underlying cost structures apply, and may lead to similar movements in these variables. We use this approach for

⁴ To account for the self-selection of firms' CSR choices which can take 4 unique values (j=1, 2, 3 or 0), we follow Dubin and McFadden (1984, p. 356) and include 3 Inverse Mills ratio terms, under their assumption that $\sum_{j=1}^{3} r_j = 0$, where r denotes the correlation between the error terms corresponding to the multinomial logit selection equation 1 and the outcome equation 2 – see Dubin and McFadden (1984, p. 352) and Adams and Cuecuecha (2013, p. 29).

advertising, display, and distribution intensity. We use a different set of instruments to account for the endogeneity of product prices. For prices, we use measures that commonly govern the factor costs of production/packaging in the CPG industry - such as the producer price indices for plastic (NAICS code 326160) and wood pulp (NAICS 322110), gathered from the Bureau of Labor Statistics website.

Estimating the Effect of CSR Initiatives on Brand Sales

We specify the following model to estimate the effect of CSR on brand sales:

$$\begin{aligned} \ln Sales_{idt} &= \sum_{j=1}^{3} \beta_{1j} \ CSR_PostAnnounce_{ijt} + \sum_{j=1}^{3} \beta_{2j} \ CSR_PostAnnounce_{ijt} * \\ CSR \ Rep_{it} + \sum_{j=1}^{3} \beta_{3j} \ CSR_PostAnnounce_{ijt} * \ CSR \ Focus_{ijt} + \beta_4 \ CSR \ Rep_{it} + \\ \gamma_1 \ln Price_{idt} + \gamma_2 \ln A dvertising_{it} + \gamma_3 \ln Distrib_{it} + \gamma_4 \ln Display_{idt} + \\ \gamma_5 \ln Positive \ Press_{it} + \gamma_6 \ln Negative \ Press_{it} + \gamma_7 \ln Sales_{idt-1} + \theta_{1id} + \theta_{2t} + \\ \sum_{j=1}^{3} \delta_j \ IMR_{ijdt} + \varepsilon_{idt} \end{aligned}$$

$$(2)$$

The model is estimated at the brand ($i \in 1 ... N$), DMA ($d \in 1 ... D$), and week ($t \in 1 ... W$) level. For each brand that introduced a CSR initiative and all the peer brands from the same product category, the sample includes data for 52 weeks before the date of that brand's CSR initiative announcement and 52 weeks post announcement. The term *CSR_PostAnnounce*_{ijt} takes a value of 1 in the 52 postannouncement weeks *t* if/after brand *i* made a CSR announcement of type *j*, 0 otherwise. *CSR_Focus*_{ijt} takes the value 1 if the CSR initiative has an environmental focus and 0 if the focus is social. For each of the *N* brands and *D* DMAs in our data, we include separate fixed effects (θ_{1id}) to account for heterogeneous brand preferences at the local market level. Including brand x DMA fixed effects obviates the need to separately account for whether brand *i* implemented CSR (i.e., via a dummy variable for having implemented a CSR initiative) and whether the CSR was environmentally or socially focused. We also include week fixed effects θ_{2i} to control for seasonality, which obviates the need to separately account for a common main effect for the post-announcement period in the data. The term $\ln Price_{it}$ is the logarithm of price for brand *i*, while $\ln Advertising_{it}$ reflects the logarithm of advertising spending for brand *i*, $\ln Distrib_{it}$ captures the logarithm of the number of stores carrying brand *i*, $\ln Display_{it}$ reflects the logarithm of brand *i*'s in-store display intensity, all in week t.⁵ Following the 2SLS approach, we replace all marketing mix controls with their predicted values from the respective first stage equation used to account for their plausibly endogenous nature.

The terms $\ln Positive Press_{it}$ and $\ln Negative Press_{it}$ are, respectively, the logarithm of the number of positively- and negatively-valenced mentions of brand *i* in the news. The lagged value of log sales of brand *i* in week *t* ($\ln Sales_{idt-1}$) is also included to account for the carryover effect of marketing events on brand *i*. The *IMR* measures are the Inverse Mills ratios incorporated to account for the endogeneity of brands' CSR choices. We compute bootstrapped cluster-robust standard errors using 50 replications to account for any within-unit serial correlation and sampling error inherent in the predicted probabilities generated from Equation 1 used in the computation of the IMR measures and of the endogenous marketing mix controls.

The terms β_{1j} , β_{2j} , and β_{3j} denote our three coefficients of interest. The coefficients β_{1j} capture the main effects of CSR of type *j* on brand sales, while β_{2j} and β_{3j} capture the moderating role of CSR reputation and CSR focus respectively. They correspond to the effect that different types of CSR efforts announced by brands have on their sales, after controlling for the influence of heterogeneity in consumers' brand preferences, changes in brands' marketing mix strategies, as well as seasonality. We discuss the results from these models in the next section.

Results

Determinants of firms' choice of type of CSR effort. We start by presenting the results of the auxiliary equations used to account for endogeneity and selection and we then present the main model results. Descriptive statistics for the variables used in Equation 1 are presented in Table 3 and for the variables used in Equation 2 are presented in Table 4. We do not observe any concerning correlations that could suggest multicollinearity.

⁵ We add a small integer before taking logs to get around instances of zeroes in our data.

The results from the multinomial logit model are presented in Table 5 and suggest that the instruments for the CSR initiatives have strong explanatory power for the propensity of firms to conduct CSR, confirming their validity. The first instrument, PR Score, is positively associated with the propensity to conduct Corrective CSR, in line with this type of CSR being focused on the firm's existing products ($\beta = .031$, p<.01). Interestingly, a high *PR* Score is also positively associated with Cultivating CSR (β =.371, p<.01) but negatively associated with firms' propensity to engage in Compensating CSR efforts ($\beta = ..., 149, p < ..., 01$). We expect that the latter result is due to the singular focus that firms with high PR Score place on improving their previously introduced products, rather than compensating for other negative externalities. The direction of the Innovation Score instrument, which refers to the extent to which the firm's processes and new products incorporate sustainable technologies, is as expected. We find a negative association for the two types of CSR focused on addressing the negative externalities associated with the firm's existing products and operations, which are likely to already be designed using high CSR standards ($\beta = -.073$, p< .01 for Corrective and $\beta = -.188$, p< .01 for Compensating). In contrast, the association with Cultivating CSR is positive ($\beta = .618$, p< .01). The third instrument, *Prop*_{CSR} *claims*, is also negatively related to Corrective CSR ($\beta = -.609$, p<.01), consistent with the argument that firms whose new products already include CSR claims are less likely to need to engage in Corrective efforts. At the same time, *Prop* _{CSR claims} is positively related to Compensating CSR ($\beta = .112, p < .01$) and marginally positively related to Cultivating CSR ($\beta = .012$, p< .10). Finally, we find that brand equity is positively related to the propensity to conduct Correcting and Compensating CSR while advertising expenditures are positively related to all three types of CSR, suggesting that strong brands view CSR as an additional avenue to maintain their brand equity.

The effect of CSR on brand sales. To determine the effect of CSR initiatives on sales we use a regression model estimated with panel data with fixed brand effects. We first conduct Augmented Dickey-Fuller (ADF) tests to assess whether the brand sales series is stationary or possesses a unit root. We also conducted Perron tests, which extend the Dickey-Fuller methodology to structural breaks in the model.

Both ADF (p-value<.01) and Perron tests (p-value<.01) of the null hypothesis of all panels having a unit root are significant, suggesting that the series are stationary. Additionally, our analyses are conducted using 104 weekly sales observations, alleviating concerns of "dynamic panel bias" salient in studies utilizing few time periods (Roodman 2009 p. 103; Judson and Owen 1999 p.13).

We present our model results in Table 6, where we include the results from various specifications, including with and without controlling for the endogeneity of the marketing mix variables. In all the specifications presented, we account for the endogeneity of firms' CSR choices as described earlier. To begin, column (1) shows the results from a model that only includes main effects but without any marketing mix controls. Column (2) shows estimates from a model that includes interactions with CSR reputation and CSR focus, but again without marketing mix controls. In column (3), we control for firms' marketing-mix strategies without (yet) correcting for their plausibly endogenous nature. Column (4) presents results from models that employ instruments to address the endogeneity in the marketing mix controls and where the continuous moderator CSR reputation is standardized.

Our results reveal that the effect of CSR on brand sales varies, and in material ways, with the type of CSR action undertaken by brands. Consistent with our H1, the direction of the change in brand sales is positive for Corrective and Compensating CSR announcements and negative for Cultivating CSR announcements. Since our dependent variable is specified in logarithms, we can compute the percentage change in sales for the focal brand on account of CSR as $(exp(\beta_{tt}) - 1)$. The change in sales for brands engaging in Corrective (Compensating) CSR appears to be in the order of 1.0 % (3.05%), whereas for Cultivating CSR it is around -3.45%. The resulting equilibrium sales levels over the long term are about $1/(1 - \gamma_7) = 1/(1-.33) = 1.5$ times the size of the above short-term sales changes (i.e., around 1.5%, 4.6% and -5.2% on average, for Corrective, Compensating and Cultivating CSR respectively).

The estimates of the coefficients corresponding to these controls are all in line with expectation – for example, product price and advertising are respectively negatively and positively related to sales. The auxiliary equations that link the marketing mix variables to the instruments that help us account for the endogeneity of these marketing mix variables yield results that are all in the expected direction and are significant at p<.01. We also formally verified the strength of the instruments employed to rule out weak identification concerns. The Sanderson-Windmeijer multivariate F-stats linked to each of our endogenous marketing mix variables range between 23.88 for price and 61.48 for distribution intensity (the p-value associated with each case was <.001). Finally, the coefficients corresponding to the Inverse Mills ratios for Corrective, Compensating, and Cultivating CSR actions are significantly different from zero, highlighting the importance of accounting for such an endogenous influence on our estimates.

The moderating effect of firms' CSR reputation and CSR focus on the relationship between CSR

initiatives and brand sales. In terms of the moderators, we find that higher CSR reputation brands experience a lower increase in brand sales compared with lower-scoring brands for Corrective ($\beta = -.012$, p < .01) and Compensating ($\beta = -.011$, p< .01) CSR actions. This is in line with our arguments about consumers expecting less from brands with low CSR reputations, and therefore being more pleasantly surprised when they undertake CSR initiatives. In contrast, for Cultivating CSR action, we do not find a significant moderating influence of CSR reputation. Thus, H2a is supported while H2b is not.

The focus of CSR on environmental, versus social issues, is also impacting the effect of CSR on brand sales. We find that the incremental effect of environmental CSR focus ($\beta = .05$, p < .01) appears to help reduce the negative effects of Cultivating CSR on sales. Similarly, environmentally focused Corrective CSR actions appear to contribute a positive boost to sales ($\beta = .045$, p <.01), while socially focused Corrective CSR actions also have a significant but slightly more modest positive effect on brand sales ($\beta = .014$, p < .01). In contrast, brands that announce environmentally focused Compensating CSR actions experience benefits that are statistically indistinguishable from those announcing socially focused Compensating CSR actions. We provide a more detailed discussion of these effects below and an illustration in the Web Appendix D.

While similar, two important differences between Corrective and Compensating CSR arise in the results. First, the effect of Compensating CSR does not differ significantly between environmental or

social initiatives. Second, there is a more pronounced moderating effect of a brand's CSR reputation on Corrective CSR. Finally, while on average, Cultivating CSR initiatives result in a slight decrease in sales, this effect was not significantly moderated by CSR reputation. Rather, the effect on Cultivating CSR was more pronounced among social initiatives.

In sum, the results are consistent with the effects hypothesized in H3 for Corrective and Cultivating CSR, but an environmentally focused Compensating CSR effort does not appear to further enhance the effect of this type of CSR on sales.

EXPERIMENTAL EVIDENCE OF THE IMPACT OF CSR INITIATIVES ON PURCHASE INTENTIONS AND AN EXAMINATION OF THE MECHANISM BEHIND THE EFFECT OF CSR

We now briefly examine our predictions under experimental settings, with the primary purpose of understanding the process underlying the effects observed in the model. Specifically, the experiments serve to replicate the pattern of results observed in the model, moderated by CSR reputation (H1, H2), while also demonstrating the mediating effect of perceived brand sincerity (H4a and H4b). To reiterate, H4 predicts that the different effects of CSR actions on brand sales postulated in the model are attributable in part to differences in consumers' inferences regarding the sincerity of the brand's actions. Consumer inferences regarding a brand's motives for CSR actions are known to influence consumer responses to those actions (Du, Bhattacharya, and Sen 2007), as consumers are reluctant to reward CSR when distrusting the company's motivations (Chernev and Blair 2015). We expect that perceptions of sincerity will be relatively high across CSR types for high CSR-reputation brands, and generally lower for brands with lower CSR reputations (Yoon, Gurhan-Canli, and Schwarz 2006). However, when a relatively lower-reputation brand demonstrates greater accountability through Corrective actions, we predict that consumers will be relatively less skeptical of ulterior motives, and thus more likely to attribute these actions to the character of the brand (Yoon, Gurhan-Canli, and Schwarz 2006). On the other hand, actions that recognize a problem without solving it (Compensating), or do not relate to nor address the brand's negative externalities (Cultivating) are likely to be met with greater skepticism due to the increased salience of possible ulterior, selfish motives (Ellen, Webb, and Mohr 2006). Thus, while

we predict that the main effects of CSR type on sales will be mediated by perceived sincerity (H4a), we also predict a moderated mediation effect (H4b). Specifically, we expect that CSR reputation will moderate the effect of CSR action on perceptions of brand motive sincerity, which will, in turn, affect purchase intentions.

Studies

A total of three studies were conducted, using similar study designs and representing different products, CSR initiatives (social and environmental), stimuli, and participant pools (total N = 507; see Table 7 for details). The three studies are each individually reported in detail in Web Appendix B. Here, however, in the interest of parsimony, we summarize all experimental results in the form of a single-paper meta-analysis, specifically utilizing an independent participant data (IPD) meta-analysis to allow for the test for mediating effects (Riley, Lambert, and Abo-Zaid 2010).⁶ This allows us to provide a concise summary of our experimental results and process evidence based on all of the available data, while providing greater generalizability (i.e., a lower risk of idiosyncratic stimuli effects).

Meta-Analysis

Study Design. All three studies employed the same base 2 (Brand CSR Reputation, Favorable vs. Unfavorable) x 3 (CSR Type: Correct vs. Compensate vs. Cultivate) study design. To begin each study, participants (N = 507, 41.6% Female, Average age = 29.9) were given background information regarding a consumer-packaged goods brand in a particular category. All participants were told that these were actual brands, but were either marketed exclusively in another country (Study 1; cold cereal) or were not identified for privacy reasons (Studies 2 and 3; coffee and bottled water, respectively). These brands were then described as either being relatively socially responsible (positive CSR reputation condition) or socially irresponsible (negative CSR reputation condition) compared to peer brands within their categories.⁷

⁶ Results are consistent when following the procedure outlined by McShane and Böckenholt (2017), though we utilize the IPD approach herein to allow for tests of mediation.

⁷ Study 2 also included a "Low Salience" or control condition in which no background information regarding CSR reputation was given. This was not used in the meta-analysis and did not meaningfully impact results.

After reading this background information about the focal brand, participants rated the likelihood that they would consider purchasing the brand (purchase intent) using a 7-point scale anchored on "not likely at all (1)" and "very likely (7)." Following this introduction and initial measurement, participants then read a description of a recent CSR initiative announced by the brand. This initiative either represented an action that reduced the brand's own negative social or environmental impact (Corrective CSR), addressed the brand's impact without actually reducing it (Compensating CSR), or was an unrelated philanthropic gesture (Cultivating CSR). After exposure to the CSR initiative, participants were then asked a second time about their purchase intentions. In addition, participants responded to measures about their perceptions of the brand's motives for the CSR initiative. Specifically, participants completed two 7-point items about how "sincere" and "genuine" they believed the brand's interest in the cause to be, while Study 3 included an additional item asking how much the brand "truly cares" about the initiative (Yoon, Gurhan-Canli, and Schwarz 2006). Participants then rated the subjective fit of the CSR initiative with the brand (Berens, van Riel, and van Bruggen 2005) as an alternative process measure. Finally, participants provided demographic information including age and gender before the studies concluded. Thus, while stimuli details and CSR contexts differed to better generalize results, the basic study designs were highly consistent, enabling a very straightforward single-paper (IPD) metaanalysis, whose results are summarized in Table 8.

Analysis. The primary dependent variable of interest was the change (Δ) in purchase intentions from before and after the CSR information was presented to participants. Individual ANOVAs interacting CSR reputation and CSR type as factors were significant for all three studies (see Table 8). For the meta-analysis, we use an aggregated dataset of all observations enabling our test for process (PROCESS model 8; Hayes 2017), using indicator coding and controlling for study-level effects (Hayes and Preacher 2014; Lowe and Haws 2019; Riley, Lambert, and Abo-Zaid 2010).

Main Effects. Consistent with the model, the studies individually and collectively show a significant interaction between CSR type and CSR reputation (F(2, 442) = 13.67, p < .001) with significant main

effects for CSR reputation (F(1, 442) = 17.94, p < .001) and CSR type (F(2, 442) = 11.88, p < .001). Corrective CSR again produced the most positive consumer response (M = .869, SE = .087, p < .05), followed by Compensating CSR (M = .582, SE = .089, p < .05). Cultivating CSR again proved the least effective (M = .275, SE = .086, p < .05; see Figure 2 and Table 8). All contrasts between CSR types were significant. While Cultivating CSR was again significantly less effective than the other two CSR types, the net effect of Cultivating CSR across the studies was positive overall, which itself was not consistent with model results. We expect this was due to simple anchoring effects given the laboratory setting and study procedures. It is also relevant that while the effect was positive within the high CSR reputation condition, the effects of Cultivating CSR were not significant within the low CSR reputation condition (M = .213, SE = .115, n.s.). Thus, the overall pattern of results was largely consistent with the pattern obtained from our empirical analysis using brand sales. The exception was Cultivating CSR which, while obtaining lower evaluation than the other two types, was nevertheless not negatively viewed.

Moderation. The moderating effect of CSR reputation was also consistent with model results, such that a high CSR reputation attenuated the positive effects of Corrective and Compensating CSR, while a high CSR reputation improved the effect of Cultivating CSR on purchase intentions (see Figure 2). Overall, the main-effect differences between CSR types were primarily driven by differences in the unfavorable CSR reputation conditions. Thus, H2 is supported in the studies, while H1 is partially supported. The pattern of results largely mimics those found with the brand sales model.

Mediation. The effects of CSR type on purchase intentions were mediated by perceived sincerity (H4a). An ANOVA on perceived brand sincerity⁸ showed main effects of CSR reputation (F(1,442) = 104.31, p < .001), and of CSR type (F(2,442) = 11.94, p < .001) with a marginally significant moderating interaction (F(2,442) = 2.43, p = .089). Not surprisingly, brands with better CSR reputations were seen as having more sincere motives for their CSR actions (M = .411) than brands with lower reputations (M = .446). More importantly, among CSR types, Corrective CSR actions were perceived as the most

⁸ Standardized due to the different items in Study 3.

sincere (M = 2.55, t(150) = 3.50, p < .001), followed by Compensating CSR actions (M = -.035, t(142) = -.414, p = .680) and Cultivating CSR actions, which was seen as significantly *insincere* (M = -.313, t(156) = -3.79, p < .001).⁹ In turn, perceived sincerity positively affected purchase intentions ($\beta = .203$, t = 3.52, p < .001). The mediating effects were significant, as perceived sincerity mediated the effects of Compensating CSR ($a_1 x b_1 = -.0473$, 95% C.I. = -.1084 to -.0044, p < .05) and Cultivating CSR ($a_2 x b_1 = -.0992$, 95% C.I. = -.1875 to -.0311, p < .05) relative to Corrective CSR, supporting H4a.

Moderated Mediation. Beyond the mediation of the main effects, we also found evidence for moderated mediation (H4b). The moderating effect of CSR reputation on perceived sincerity was similar to that observed with purchase intentions, such that differences in perceived sincerity were more pronounced within brands of lower CSR reputations (F(2,442) = 11.21, p < .001) than brands with higher CSR reputation (F(2,442) = 2.86, p = .056). Testing the entire model, a moderated mediation analysis (PROCESS model 8) returned significant indices of moderated mediation through perceived sincerity for both Compensating CSR (a1 x b1 = -.075, 95% C.I. = -.1921 to -.0032, p < .05) and Cultivating CSR (a2 x b1 = -.063, 90% C.I. = -.1493 to -.0014, p < .10), relative to the Corrective CSR condition. The latter moderated mediation effect was only marginally significant, as the indirect effects for Cultivating actions by brands with favorable and unfavorable CSR reputations were *both* negative and significant (Favorable: a2 x b1 = -.1194, 95% C.I. = -.2364 to -.0046, p < .05; Unfavorable: a2 x b1 = -.0562, 95% C.I. = -.1294 to -.0046, p < .05). Overall, the moderated mediation results predominantly support H4b. Alternative Mediator. Perceived fit of the CSR initiative with the brand, which was tested as an alternative mediator, did mediate the main effects of CSR type on purchase intentions (Compensate: a1 x b₁ = -.0331, 95% C.I. = -.0743 to -.0079, p < .05; Cultivate: a₂ x b₁ = -.0753, 95% C.I. = -.1538 to -.0172, p < .05). However, perceived fit was not significant in the moderated-mediation model (PROCESS model 8), as the index of moderated mediation was not significant for either Compensating (a1 x b1 = -.0378, 90% C.I. = -.0912 to .0049, p > .10) or Cultivating CSR actions (a2 x b1 = .0315, 90% C.I. = -.0315, 90% c.I. =

⁹ These results are compared to the scale midpoint. Results remain consistent when using unstandardized values and scale midpoint for perceived sincerity.

C.I. = -.0164 to .0919, p > .10), relative to Corrective CSR. Thus, while perceived fit may thus help explain the main effects of CSR on sales response, fit does not appear to fully explain the effects observed in the model and studies.

Discussion. The results from three laboratory experiments lend support to the results documented with secondary data, but more importantly, they provide process evidence for the underlying effect. As was the case in the brand sales model, participants rewarded Corrective CSR actions with increased purchase intentions. The moderating effect of brand CSR reputation also shows a similar pattern, attenuating the positive effects for both Corrective and Compensating CSR, and improving purchase intention outcomes for Cultivating CSR. These effects were driven in part by subjects' inferences regarding the sincerity of the brand's motives behind the CSR initiatives. Overall, the results of these studies are consistent with our findings from the sales data, with the exception of Cultivating CSR not being negatively viewed by participants. Finally, while we did not explicitly manipulate the environmental versus social focus of CSR actions used in Study 3 is environmentally focused, and the direction of the effects across these two sets of studies is consistent with the moderating effect hypothesized in H3.

DISCUSSION AND CONCLUSION

This paper proposes a typology of CSR activities that is based on demonstrating accountability for the impact that brands have on consumers and the environment. Using both brand-level sales data as well as data from lab experiments, we show that consumers respond positively to brands that undertake Corrective and Compensating actions, but not to those that engage in Cultivating goodwill actions. We also show that the effects of these actions on sales and purchase intentions are mitigated by high CSR reputation. Further, we show that an environmental CSR focus, relative to a social one, strengthens the positive effect of Corrective CSR and weakens the negative effect of Cultivating CSR. Finally, we find that perceptions of brand sincerity mediate the effect of CSR actions on purchase intentions: Corrective and Compensating CSR, which suggest a higher desire to correct brand liabilities, are perceived as more sincere and increase purchase intentions, while Cultivating goodwill CSR is viewed as less sincere and does not appear to lead to any changes in purchase intentions.

Theoretical Implications

The CSR literature is sizable and already includes classifications of CSR activities into business practice versus philanthropic, reactive versus proactive, or environmental versus social. However, such categorizations are broad and do not provide a direct link to what would be the most suitable type of CSR for each firm. By focusing on CSR activities that address the negative externalities associated with firms' operations, our typology establishes this link, while also offering an umbrella large enough to encompass the full spectrum of CSR efforts typically undertaken by firms. Our work connects the CSR stream of literature with the one on brand harm crises and with image restoration theory. This work suggests an underlying mechanism for the success of Corrective and Compensating CSR initiatives, which starts with firms acknowledging their externalized costs and selecting appropriate compensatory CSR actions, and results in firms enjoying positive consumer outcomes including increased perceptions of firm sincerity and stronger purchase behavior. In contrast, our results suggest that Cultivating goodwill is a special type of CSR, and that stakeholders' reactions to it require further scholarly and practitioner inquiry. This finding is in line with recent research that has documented negative employee outcomes to cash donations to a non-profit, which can be classified as Cultivating CSR (List and Momeni 2021).

Moreover, our framework goes beyond this categorization and also allows for a comparison of two broad classes of CSR—environmentally- versus socially focused—which can both materialize within each of the three types of CSR included in our categorization (Dahlsrud 2008). Thus, assessing the intersection of environmental and social focus with our typology deepens our understanding of CSR as a complex and multidimensional construct. In line with research that finds consumers viewing environmental issues as relatively more important than social ones (Oberseder, Schlegelmilch, and Murphy 2013), our results suggest that an environmental focus further increases the positive effect of Corrective CSR initiatives on brand sales, while it mitigates the negative effect of Cultivating CSR. The

intriguing finding that an environmental focus does not appear to help Compensating CSR initiatives could be due to a heightened awareness of the cost that the firm's operations have on the environment, which may not be adequately addressed by firms' compensation efforts.

We also highlight the moderating effect of CSR reputation, as prior work finds that consumers may react differently to the same CSR actions depending on whether the perception is that the actions are isolated endeavors or typical of the brand (Du, Bhattacharya, and Sen 2007). CSR reputation is especially informative for consumers given the potential for greenwashing in the CSR space. We add to the literature by outlining some of the reasons for the differences in consumer reactions to the same CSR actions. High CSR reputation provides a ceiling effect for potential rewards associated with such initiatives, while lower CSR reputation brands' Corrective and Compensating CSR engagement leads to increased perceptions of brand sincerity and ultimately brand sales. Moreover, our research adds a new facet to the stream of literature that has examined CSR reputation in the context of tempering negative evaluations associated with brand harm crises (Du, Bhattacharya, and Sen 2007; Klein and Dewar 2004). The CSR typology proposed in this paper—by focusing on firms taking accountability for "everyday" harm, rather than reacting to distinct crises—expands the role of CSR as a mitigating factor of a broader set of negative externalities associated with the activities of firms.

Our theory also allows us to reconcile some of the negative effects of CSR previously documented in the literature, such as that of profit-oriented CSR in Becker-Olsen, Cudmore, and Hill (2006), activities focused on community support in Ailawadi et al. (2014), and agency costs in Wang, Choi, and Li (2008). Our accountability-based framework offers overarching insight into these negative effects. We propose that these negative effects are more likely to occur when the CSR actions appear to be disconnected from the brand's own footprint, are not perceived as sincere, and do not suggest that the firm seeks to counteract some of the negative externalities associated with its operations. Consumers may find CSR actions aimed at Cultivating goodwill to be less sincere. They may attribute this lack of sincerity to profit-orientation, supporting issues that they do not agree with, or engaging in corporate

philanthropy that enhances managers' personal reputations. The experiments that we present in our paper not only establish brand sincerity as a mediator of the relationship between CSR and purchase intentions in three very different scenarios, but also highlight the fact that Cultivating CSR, perceived as being the least sincere of the three types of initiative, fails to sway consumers towards the brand.

Managerial Implications

Our results also carry implications for managers. With the caveat that our (observational) data are not particularly suited for enabling strong normative claims about the type of CSR actions firms should undertake, we propose that one of the key managerial takeaways of our study is that brands can stand to benefit from emphasizing the accountability of their CSR efforts, particularly if it addressed environmental issues. Furthermore, our results suggest that managers should reconsider engaging in CSR actions that cannot be clearly linked to the brand's perceived negative externalities on either society or the environment. This is critical as consumers are becoming ever more aware of the potentially harmful effects of brands' business operations on both societal and environmental dimensions. Brands in the CPG category, in particular, are increasingly being taken to task on these issues. For example, Coca-Cola was named top plastic polluter for the third year in a row, beating out other top polluters Pepsi and Nestle. Coca-Cola was accused of making zero progress on plastic waste reduction with its beverage bottles found littered on beaches, rivers, and parks (McVeigh 2020). At the same time, Coca-Cola recently celebrated its having awarded over \$73,000,000 in college scholarships over the last 25 years (Coca-Cola 2020). Our results suggest as a general guiding philosophy, brands should strive to "clean up their own mess" before engaging in general charitable efforts that may otherwise be seen as insincere efforts aimed squarely at garnering consumer goodwill. While college scholarship donations are a worthy endeavor, our study suggests that a focus on plastic waste reduction may resonate more strongly with Coca-Cola's consumers. It is thus not surprising that in response to being named "top plastic polluter," Coca-Cola has highlighted its commitment to recycling every one of its beverage bottles by 2030 (McVeigh 2020).

In addition to helping managers better understand the consequences of various CSR activities, our findings also suggest what aspects of these initiatives have to be clearly communicated to the public. Accountability and efforts to reduce negative externalities should be highlighted in companies' press releases about CSR initiatives, as these appear to lead to positive consumer outcomes.

Limitations

There may be unaccounted factors that could impact the effect of CSR actions on brand sales. For instance, the extent of resource investment (both in terms of financial resources and effort) into the CSR roll-out process may play a role in influencing sales returns and the success of the CSR initiatives. However, information on brand investments into CSR is either proprietary or hard to quantify, or both. We partially account for the support given to CSR actions in two ways – one, by including time-varying advertising spending at the brand level as a covariate in our regressions, and two, by maintaining the brand's identity constant in our experimental analyses, but there could be other strategic consideration that drive CSR that we were not able to incorporate in our analysis.

Future Research

Our research represents a first step in better understanding the effects of CSR initiatives on brand sales. We have examined brand sales up to a year after an initiative was announced, but CSR activities may also strengthen brand loyalty and satisfaction, which could in turn lead to strong longer-term outcomes. Identifying additional boundary conditions for the effects we present in this paper can also help managers make better CSR choices. Likewise, while we test and find evidence for one proposed mediator, we recognize that this process may involve further unexplored nuance. For instance, might CSR affect other outcome variables - consumer identification with the brand, product attractiveness, strength of partnership with retailers, etc. - that help mediate and explain the differences in sales? Systematically understanding when and why consumers respond in particular ways to these CSR types may be a promising area of future inquiry.
An interesting question that stems from our findings is the sequencing of the types of CSR at the firm level. While our results indicate that Cultivating initiatives lead to negative outcomes, it is plausible that this effect could be softened or even reversed if a firm has already established a strong history of accountability, having already corrected and compensated for its negative externalities through CSR initiatives conducted in the past. With more companies engaging in CSR, researchers may soon have access to data that allows them to expand on our research for examining the effects of a firm's rich history of CSR actions on brand sales, beyond merely controlling for corporate CSR reputation. Moreover, might it be wise for firms to deploy multiple CSR strategies at once? Could conducting Cultivating and Correcting CSR at the same time counteract the negative effects of Cultivating on sales or could it confuse consumers and hurt the CSR reputation of the brand? Concurrent CSR actions may increase awareness and may be more likely to be noticed by investors (Warren and Sorescu 2017b) but estimating the direction of their net effect may not be straightforward.

Finally, while our justification for the negative effects of Cultivating initiatives is rooted in theory (lower accountability) and supported by data from experiments that show that consumers view brands that engage in this type of CSR as less sincere, the question of why firms pursue such activities, beyond the obvious tax benefits, remains open. Fully answering this question is beyond the scope of this paper but one possibility is that firms may target other stakeholders, such as employees or shareholders, with these efforts. For instance, it could be that employee engagement in some Cultivating actions may lead to positive employee outcomes such as higher productivity and retention, which may help offset some of its negative effects on sales. Moreover, Cultivating CSR is directed at a set of stakeholders that is in many cases distinct from the consumer base. Consequently, it would be valuable to take a deeper look into which external group of stakeholders can be targeted with Cultivating CSR, and how these actions should be framed and communicated so that consumers would view these actions more favorably.

Conclusion. We show that brand decisions to engage in CSR present both opportunities as well as challenges. By reducing one's negative impact or footprint first, brands appear to win the approval of

consumers to the greatest degree. However, stepping beyond their natural purview, on the other hand, may be met with cynicism if a brand has not yet met a certain standard for its own behavior. For brands with already sterling reputations, the prospect of further impressing consumers can be more challenging, although doing good outside their footprint in the form of philanthropic efforts becomes an option. These results provide practical guidance for managers making decisions about their own CSR. Overall, it is both encouraging and promising to note that business, consumer, social and environmental interests can align in the form of businesses genuinely reducing their adverse impact for global betterment.

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Table 1. REPRESENTATIVE CSR LITERATURE: MEASUREMENT, TYPE, AND CLASSIFICATION OF CSR INITIATIVES IN EXTANT RESEARCH

Paper	Experim ental data	Survey data	Seconda ry data (firm level)	Seconda ry data (brand level)	Effect	Dependent Variable	Type of CSR analyzed	Classification of CSR
Ailawadi et al. (2014)		~			Positive (negative) for behavioral loyalty for CSR (not) related to customer's direct exchange with the firm	Attitude, behavioral loyalty	Environmental and social responsibility	None
Anselmsson and Johansson (2007)		\checkmark			Positive	Attitude/purchase intent	Product, social, and environmental responsibility	None
Becker- Olsen et al. (2006)	\checkmark				Positive (negative) for purchase intent for high (low) fit CSR	Attitude/purchase intent	Environmental and social responsibility	None
Bhardwaj et al (2018)	\checkmark				Positive	Attitude/purchase intent	Social responsibility	Company ability relevant CSR (positively impacting performance) and company ability irrelevant CSR (no impact on performance)
Buell and Kalkanci (2021)	\checkmark				Positive	Bookstore sales from a field experiment	Environmental and social responsibility	Internally or externally focused on the value chain
Chernev and Blair (2015)	\checkmark				Positive	Product evaluations	Philanthropy	None
Du et al. (2007)		\checkmark			Positive	Loyalty, consumer advocacy for the brand	Environmental and social responsibility	None
Groza et al. (2011)	\checkmark				Positive	Attitude, Purchase intent	Environmental responsibility	Reactive versus proactive CSR
Homburg et al. (2013)		\checkmark			Positive	Customer loyalty	Corporate CSR measure	Business practice CSR engagement and Philanthropic CSR engagement
Inoue et al. (2017)		\checkmark	\checkmark		Positive	Attendance at football games	Survey based perceived CSR	None

Paper	Experim ental data	Survey data	Seconda ry data (firm level)	Seconda ry data (brand level)	Effect	Dependent Variable	Type of CSR analyzed	Classification of CSR
Kang et al. (2016)			√		Positive (no effect) when CSR is a good management (penance) mechanism	Firm performance (Tobin's q)	Corporate CSR measure	None
Luchs et al. (2010)	\checkmark				Positive (negative) when gentleness (strength) product attributes are valued	Consumer preference	Sustainability	None
Luo and Bhattacharya (2006)			√		Positive; Negative for firms with low innovativeness capability	Stock return, Firm performance (Tobin's q)	Corporate CSR measure	None
Mishra and Modi (2016)			√		Positive for stock returns; Negative for risk (community CSR, n.s.)	Stock returns, Idiosyncratic risk	Corporate CSR measure	None
Newman et al. (2014)	✓				Positive effect greater for unintentional (vs. intentional) product changes	Purchase intent	Environmental responsibility	None
Sen and Bhattacharya (2001)	\checkmark				Positive	Company evaluation/purchase intention	Corporate CSR measure	None
Servaes and Tamayo (2013)			~		Positive (negative/n.s.) for firms with high (low) customer awareness. Effects reversed for firms with poor reputations as corporate citizens	Firm performance (Tobin's q)	Corporate CSR measure	None
Wagner et al (2009)	✓				Negative	Attitude	Corporate CSR measure	Reactive versus proactive CSR, abstract versus concrete CSR policy, inoculation strategy or not
Yoon et al. (2006)	✓				Positive (negative) when consumers learn about low benefit salience CSR through a neutral (company) source	Company evaluations	Corporate CSR measure	High versus low benefit salience CSR
Our paper	✓			~	Positive (negative) when firms take (do not take) accountability for negative externalities	(1) Brand Sales; (2) Intentions of purchase	CSR measure encompassing product, social, and environmental responsibility as well as philanthropy	Accountability based: Corrective, Compensating, Cultivating

Instrument	Definition	Instrument Relevance	Exclusion restriction	Data
Product Respon-	The Product Responsibility Score is a weighted	PR_Score captures firms' CSR	<i>PR_Score</i> is calculated at the corporate	Refinitiv's EIKON.
sibility Score	combination of scores that captures the extent to	emphasis on ensuring that as little	level and refers to the existence of	The EIKON database
(PR_Score)	which a company has structures and processes in	harm as possible is done to	corporate-level policies and processes	includes ESG scores
	place dedicated to producing quality goods and	consumers, it should be positively	that are meant to reinforce a positioning	for over 9000 global
	services, ensuring the customer's health and	correlated with the firms'	focused on responsibility. The products	firms, which are
	safety, and protecting customers' data privacy.	propensity to conduct Corrective	associated with this type of positioning	computed from a
	This variable is different from CSR reputation:	actions.	may be niche, or may elicit a price	variety of public
	the policies of a firm with high PK score are not		premium, but their sales are not	sources including
	firm with high CSP reputation could one this		necessarily nigher than those of more	annual reports,
	reputation to philanthronic efforts or to CSR		consumers continue to prefer the latter	news sources NGO
	initiatives not directly related to policies that		(e.g. Wilcox et al. 2009)	websites and others
	impact consumers This is a firm-level variable		(e.g., () neon et al. 2005).	
	and data vary annually.			
	5			
Innovation score	The Innovation score within the Environmental	Firms that score high on this pillar	Innovation Score captures mostly	
(Innovation	pillar in EIKON reflects the brand's inclination	are focused on innovation, and	corporate processes that reinforce a	
Score)	to use new environmental technologies and	therefore are less likely to be	manufacturing and positioning strategy	
	processes or to manufacture eco-designed	focused on their old, existing	focused on new environmental	
	products. This is a firm-level variable and data	products. Moreover, since their	technologies. As previously argued,	
	vary annually.	new products are already likely to	such products do not necessarily surpass	
		be more sustainable and	conventional alternatives in sales, but	
		incorporate more responsible	are rather more likely to target unique	
		practices, these firms are more	consumer segments.	
		CSP then in the other two traces		
Proportion of now	For each brand in our complete we obtain all new	This variable reflects a brand's	Since the veriable was constructed using	ClobalData Product
products	products introduced in the two years before each	commitment to incorporate CSR	new products from all categories in	Launch Analytics
introduced by the	CSR initiative was introduced from which we	practices in its products and	which brands operate, except for the	database a database
brand that contain	exclude the products introduced in the categories	should be positively associated	focal one, it should not directly impact	that provides
CSR claims, in	we study in our paper – we call this resulting	with the general propensity of the	brand sales in the focal category,	extensive information
product	measure NP. We then classify the package	firm to engage in CSR, but	ensuring that the exclusion restriction is	on CPG products
categories other	claims for these products into CSR (NP _{CSR claims})	negatively associated with	verified.	(e.g., Moorman et al.
than the focal one	and non-CSR related (NP _{Other claims}). We use this	Corrective CSR actions because		2012).
(Prop_CSR claims)	classification to compute NP _{CSR claims} /NP, which	firms may have less remaining to		
	we use as an instrument for the propensity to	correct for, or less that can easily		
	engage in CSR initiatives. This is a brand-level	be corrected.		
	variable computed using two years of data			
	preceding each CSR initiative.			1

Table 2. DESCRIPTION OF INSTRUMENTS USED TO CONTROL FOR THE ENDOGENEITY OF THE TYPE OF CSR ACTION

	PR Score	Ad Expenditure	Prop CSR Claims	Innovation Score	Brand Asset	Mean	SD
PR Score	1					3.35	.96
Ad Expenditure (\$M)	.14	1				1.67	3.52
Prop CSR Claims	02	03	1			1.04	.77
Innovation Score	.33	05	08	1		2.49	1.15
Brand Asset	.03	.11	.16	.29	1	73.50	22.01

Table 3. CORRELATION MATRIX AND SUMMARY STATISTICS OF DETERMINANTS OF CSR TYPE

Table 4. CORRELATION MATRIX AND SUMMARY STATISTICS OF DETERMINANTS OF BRAND SALES

	CSR Reputat ion	CSR Focus	Log of Price	Log of Ad Expenditure	Log of Display Intensity	Log of Distribution Intensity	Log of Positive Press	Log of Negative Press	Log of Sales _{t-1}	Mean	SD
CSR Reputation	1									.30	1.11
CSR Focus	.17	1								.08	.27
Log of Price	.08	.06	1							1.56	.48
Log of Ad Expenditure	.10	.10	.05	1						8.20	6.69
Log of Display Intensity	.04	.06	02	.16	1					-5.73	3.67
Log of Distribution Intensity	01	02	09	.24	.15	1				7.02	.45
Log of Positive Press	15	12	.022	.16	.01	.14	1			9.10	.71
Log of Negative Press	02	11	12	.18	.09	.25	16	1		5.88	3.55
Log of Sales _{t-1}	.04	.02	31	.23	.38	.36	.08	.07	1	6.51	1.76

DV=CSR Type Choice	Correct		Compen	sate	Cultivate	
	Est.	SE	Est.	SE	Est.	SE
PR score	.031**	.006	149**	.005	.371**	.013
Ad expenditure	.180**	.012	.776**	.009	.113**	.009
Prop CSR Claims	609**	.007	.112**	.006	.012+	.007
Innovation Score	073**	.005	188**	.006	.618**	.007
Brand Asset	.008**	.000	.004**	.000	.001	.000
N			1,196,03	57		
Log – Pseudolikelihood			-456251	.55		

 Table 5. DETERMINANTS OF THE TYPE OF CSR INITIATIVE

**p<.01, *p<.05, ⁺p<.1 Note: Heteroskedasticity Robust SEs are reported alongside estimates.

	Main effe marketing m	cts, excl. nix controls	Full mode marketing m	el, excl. ix controls	Marketing m included (wi endogeneity	ithout their correction)	Marketing m included endoge correction), Standar	hix controls I (with eneity CSR Rep rdized
DV=Log (Brand Sales)	(1)	(2)		(3)		(4)
	Est.	SE	Est.	SE	Est.	SE	Est.	SE
Correct	.020**	.002	.012**	.005	.016**	.005	.010*	.005
Compensate	.011**	.003	.029*	.011	$.020^{+}$.013	.030*	.014
Cultivate	012**	.003	013*	.006	036**	.009	035**	.008
Interactions with CSR Focus								
Incremental effect for Environmental -Correct			.039***	.011	.029*	.013	.045**	.009
Incremental effect for Environmental -Compensate			013	.013	.001	.014	006	.007
Incremental effect for Environmental -Cultivate Goodwill			.024*	.011	.057**	.015	.051**	.015
Interactions with CSR Reputation								
Correct x CSR Rep			007*	.003	011**	.004	012**	.001
Compensate x CSR Rep			007*	.002	011**	.002	011**	.002
Cultivate x CSR Rep			005	.003	008*	.003	004	.003
Control Variables								
Log of Price					.007	.555	142	.742
Log of Ad expenditure					.004**	.000	001	.005
Log of Display					.987**	.113	.641**	.093
Log of Distribution intensity					.359**	.084	.015	.270
Log of Positive press					75.96**	5.439	66.88**	9.811
Log of Negative press					-68.26**	4.952	-59.47**	9.615
Lag of Log (Brand Sales)	.375**	.001	.375**	.005	.343**	.029	.334**	.037
Endogeneity Correction								
IMR-Compensate	035**	.005	036**	.006	2.346**	.173	2.099**	.266
IMR-Correct	.101**	.004	.101**	.007	865**	.065	746**	.129
IMR-Cultivate	.078**	.003	.078**	.004	1.437**	.109	-1.276**	.176
N	1,157	7,530	1,157	,530	1,141	,022	1,141	,022

Table 6. EFFECT OF CSR INITIATIVES ON BRAND SALES

**p<.01, *p<.05, * p<.1
Notes: Brand x DMA fixed effects and Week fixed effects are included in all specifications. Bootstrapped heteroskedasticity cluster robust SEs are reported. Main effects of CSR Focus of an
announcement and the brand's CSR Rep are not identified separately from the Brand x DMA fixed effects. Employs 1-week lags for the DV. Results are similar with 4- or 8-week lags.</pre>

Table 7. ROAD MAP OF EXPERIMENTAL STUDIES THAT SHOW THE EFFECT OF CSR ON PURCHASE INTENTIONS

	Study 1	Study 2	Study 3
Distinguishing Feature	Packaging stimuli/Laboratory study	Alternative Process variables/Retail context	Tests alternative process variables & individual differences
CSR Domain	Social (Health)	Social (Labor)	Environmental
DV	Purchase Intentions	Purchase Intentions	Purchase Intentions
Product category	Cold Cereal	Coffee (Chain)	Bottled Water
Design	3 x 2	3 x 3	3 x 2
Participants	Students	Online panel	Online panel
Interactions	p<.001	p<.001	p=.05
N	181	176	150

Table 8. RESULTS FROM A META-ANALYSIS OF THREE EXPERIMENTAL STUDIES:MAIN EFFECTS, MODERATING EFFECTS OF CSR REPUTATION, AND INDIRECT(MEDIATING) EFFECTS OF PERCEIVED SINCERITY FOR EACH CSR TYPE IN THEEXPERIMENTAL DATA

	Main Effects of CSR Type on Purchase Intent ^a	Moderating Effect of CSR Reputation on the Relationship Between CSR Type and Purchase Intent ^a	Main Effects of CSR Type on Perceived Brand Sincerity ^b	Relative Indirect Effect of CSR Type on Purchase Intent Mediated by Perceived Sincerity ^c	Index of Moderated Mediation ^d
Correct	.869, <i>p</i> < .05	-1.13, <i>p</i> < .001	.210 <i>p</i> < .01	(Reference Category)	(Reference Category)
Compensate	.582, <i>p</i> < .05	275, <i>p</i> = .12	024, NS	0473, <i>p</i> < .05	075, <i>p</i> < .05
Cultivate	.275, <i>p</i> < .05	.124, NS	280, <i>p</i> < .01	0992, <i>p</i> < .05	063, <i>p</i> < .10
Omnibus	<i>p</i> < .001	<i>p</i> < .001	<i>p</i> < .001	-	-

^a Marginal means (Column 1), parameter estimates (Column 2) from ANOVA results on purchase intent.

^b Marginal means from ANOVA results on Perceived Sincerity.

^e Indirect effects resulting from PROCESS Model 4, controlling for CSR Reputation (Hayes 2017). The indirect effect represents the product of: 1) the effect of CSR Type on Perceived Sincerity, and 2) the effect of Perceived Sincerity on Purchase Intentions.

^d Indirect effects resulting from PROCESS Model 8 (Hayes 2017). The indirect effect represents the product of: 1) the effect of CSR Type on Perceived Sincerity, moderated by CSR Reputation, and 2) the effect of Perceived Sincerity on Purchase Intentions..

Figure 1. Conceptual Framework of the Effect of CSR Initiative on Purchase Intentions and Sales



Figure 2. Results from a Meta-Analysis of Three Experimental Studies: Change in Purchase Intentions Across CSR Types and CSR Reputation Conditions



Web Appendix for "The Impact of Corporate Social Responsibility on Brand Sales: An Accountability Perspective"

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Journal of Marketing

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These materials have been supplied by the authors to aid in the understanding of their paper. The AMA is sharing these materials at the request of the authors.

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WEB APPENDIX A

Table WA: List of CSR Events Used in the Study

Brand	Date	CSR Announcement Description	CSR Type
Apple Jacks Cereal	6/4/2009	The Kellogg Company announced that it will add fiber to its Apple Jacks cereal.	Corrective
Aveda Shampoo	4/28/2009	Aveda today announced it has become the first beauty company in the world to receive a Cradle to Cradle (C2C) sustainability endorsement.	Corrective
Big Sky Brewing Beer	7/8/2010	Big Sky Brewing announced that it has signed a three-year contract for Water Restoration Certificates – an innovative water stewardship program.	Compensating
Biolage Shampoo	4/27/2010	Biolage's Thank You Program launched a year-long initiative to show its dedication to stylists and salon owners, as well as to give back to the community and the Earth.	Cultivating
Bounty Paper Towels	7/26/2010	Bounty announced that it will award one school with a \$25,000 classroom makeover and 10 finalists with \$5,000 grants to use toward transforming their school art rooms.	Cultivating
Busch Beer	8/21/2007	River Network and Busch Beer announced plans to help to protect the rivers and watersheds of Oregon, Washington and Idaho.	Compensating
Campbell's Soup	10/7/2008	Campbell Soup Company announced a \$10 million pledge to the City of Camden's neighborhood revitalization efforts, job training initiatives and projects to benefit youth.	Cultivating
Campbell's Soup	6/4/2009	Campbell Soup Foundation announced that it will donate \$400,000 to fund summer camp programs Camden, NJ.	Cultivating
Campbell's Soup	5/4/2010	Campbell Soup Company announced four sustainability and corporate citizenship goals, including goals to reduce childhood obesity and water consumption.	Compensating
Cheerios Cereal	3/5/2002	Cheerios launched a significant commitment to childhood literacy, which includes cereal box offers for classic children's books, monetary support for national literacy initiatives and a variety of resources to help families make reading a priority.	Cultivating
Cheerios Cereal	5/21/2008	Cheerios honored five women leaders with a 2008 Cheerios Sisters Saving Hearts grant award for their work to raise awareness for heart disease prevention, particularly among black women.	Cultivating
Chobani Yogurt	10/17/2011	Chobani sponsored a Food Drive Challenge and working with local schools to gather food donations for local food pantries.	Cultivating
Clorox Household Cleaner	1/12/2009	Clorox's initiative aims to increase communication about product ingredients, by having ingredients posted on the website for all of its household cleaning products.	Compensating

Clorox Household Cleaner	2/9/2009	The Clorox Company announced plans to expand communication of the ingredients in many of its products.	Compensating
Clorox Household Cleaner	6/9/2011	The Clorox Company previewed its plans to launch a new mobile product ingredient application and website that will give consumers immediate access to product ingredient information.	Corrective
Coca-Cola Soda	3/7/2006	The Coca-Cola Company announced that it has officially joined the United Nations Global Compact, the world's largest voluntary corporate citizenship initiative.	Corrective
Coca-Cola Soda	2/22/2011	The Coca-Cola Foundation donated \$1 million to the Community Foundation of Greater Atlanta to support an effort to re-open the city's previously closed recreation centers and provide educational tutoring programs.	Cultivating
Coors Beer	9/15/2006	Coors Light presented the New York-based Hispanic Federation with a \$25,000 donation to support Hispanic Federation's Get out the Vote and Citizen Information programs	Cultivating
Coors Beer	3/10/2008	Coors Brewing Company supplied more than \$600,000 in medical supplies and equipment in Mexico through its support of Project C.U.R.E. – a non-profit medical relief organization for more than 120 nations throughout the world.	Cultivating
Cottonelle Toilet Tissue	8/5/2009	Cottonelle brand announced stronger fiber sourcing standards that will increase conservation of forests globally.	Corrective
Crest Toothbrush	12/24/2006	Crest donated Crest SPINBRUSH brand toothbrushes 100,000 disadvantaged children during the holiday season.	Cultivating
Dannon Yogurt	10/5/2006	The Dannon Company established the Dannon Next Generation Nutrition Grants in 2006 to promote childhood nutrition education and contribute up to \$120,000 to nonprofit organizations.	Compensating
Degree Deodorant	6/1/2011	Degree Women launched the "Get into the Move" application on Facebook to encourage users to move and engage in fitness activities.	Compensating
Dove Deodorant	1/19/2011	Girl Scouts of the USA and Dove partnered to deliver Girl Scout leadership and self-esteem programming to millions of girls nationwide and abroad.	Cultivating
Dr. Pepper Soda	8/9/2010	Dr. Pepper Snapple Group, Inc. announced the launch of a new corporate philanthropy program, ACTION Nation to foster physically active, engaged and sustainable communities.	Cultivating
Frito Chips	10/5/2011	PepsiCo's Frito-Lay North America division celebrated its Casa Grande, Arizona, facility that reached "near net zero," run primarily on renewable energy sources and recycled water, while producing nearly zero landfill waste.	Corrective
Froot Loops Cereal	6/4/2009	The Kellogg Company announced a plan to add fiber to its ready-to-eat cereals, including Froot Loops.	Corrective
Garnier Shampoo	4/11/2011	Garnier announced an exclusive partnership with TerraCycle, one of the fastest growing green companies	Compensating

		specializing in making consumer products from post- consumer materials.	
Gillette Razors	6/29/2005	The Gillette Company today named seven Boston-area social service organizations as the first grant recipients in a program that will provide \$800,000 this year to prevent homelessness in Boston.	Compensating
Green Mountain Coffee	11/20/2007	The Global Reporting Initiative (GRI) has responded to the demand for increased transparency in food production by facilitating a working group to provide sector-specific sustainability indicators for food processing activities.	Corrective
Green Works Household Cleaner	1/15/2009	Green Works invites individuals to nominate eco-friendly community projects for a Green Heroes grant.	Compensating
Head & Shoulders Shampoo	12/5/2011	Head & Shoulders unveiled The Good Girlfriend Guide, an e-manual of positive girlfriend-to-girlfriend advice, and is working with non-profit organization Women's Empowerment, which will receive all proceeds from the eBook.	Cultivating
Heineken	3/22/2011	Heineken's was featured on the National Geographic Channel documentary series Mega Factories, which showed how the company has incorporated sustainability in its business processes, most notably in the efficient use of water and energy.	Compensating
Heinz Ketchup	01/15/2002	The H.J. Heinz Company Foundation will donate \$20,000 to the Tony Hawk Foundation to develop public skateboard parks in low-income areas nationwide.	Cultivating
Heinz Ketchup	09/02/2009	The H.J. Heinz Company Foundation announced that it will sponsor a nutrition mapping project conducted by the World Food Program in Bangladesh to address that country's nutritional deficiencies in an efficient and sustainable manner.	Compensating
Heinz Ketchup	2/4/2010	Heinz will reduce sodium by 15 percent in its core line of ketchup.	Corrective
Heinz Ketchup	2/21/2011	Heinz will use bottles made from petroleum-based materials and up to 30% plant-based materials in all 20- ounce ketchup bottles.	Corrective
Hellmann's Light Mayonnaise	2/24/2010	Hellmann's announced that its Light Mayonnaise recipe in North America will feature 100% certified cage-free eggs in the United States.	Corrective
Huggies Diapers	6/17/2010	Huggies will donate up to 20 million diapers in the U.S. to ten local diaper banks across the country.	Compensating
Hunts Ketchup	5/17/2010	Hunt's announced that it has removed high fructose corn syrup from every bottle of its ketchup products.	Corrective
Kashi Cereal	11/14/2010	Kashi and RecycleBank announced a new partnership designed to encourage more sustainable forms of consumption, raise awareness for America Recycles Day and inspire more people to recycle.	Compensating
Kashi Pizza	9/5/2008	Sundance Channel and Kashi Company announced a new branded entertainment platform with a short-form series, reflecting Kashi's commitment to helping people make	Compensating

		positive changes in their own lives, the series profiles seven change agents across the U.S. who are dedicated to promoting healthy lifestyles and greater connections to the natural world.	
Kleenex Facial Tissue	10/10/2011	Kleenex tissue includes fiber sourced from suppliers who have been independently certified to follow the highest standards in forestry management to protect forests and habitat.	Corrective
Maxwell House Coffee	1/27/2010	Maxwell House coffee brand changed from steel cans to composite paperboard that weighs less, uses 50 percent recycled content and eliminates 8.5 million pounds of packaging.	Corrective
Maxwell House Coffee	12/27/2011	Kraft Foods and its brands, including Maxwell House, announced it will donate more than 25 million meals to Feeding America.	Cultivating
Miracle Whip Mayonnaise	12/27/2011	Kraft Foods and its brands, including Miracle Whip, announced it will donate more than 25 million meals to Feeding America.	Cultivating
Nature's Path Cereal	11/21/2007	Nature's Path has awarded a \$100,000 grant from its EnviroFund to the Amazon Conservation Team.	Cultivating
Nature's Path Cereal	4/22/2009	Nature's Path Organic Foods celebrated the ten-year anniversary of its EnviroKidz Giving Back Fund, which has donated a total of over \$1.2 million Canadian to deserving non-profit organizations.	Cultivating
Nescafé Coffee	9/2/2010	Nescafé announced a \$344 million investment in sustainability with plans, among others, to source 90,000 tonnes of coffee beans from farms that comply with Rainforest Alliance and Sustainable Agriculture Network principles.	Corrective
Pampers Diapers	4/7/2008	For every Pampers diaper "One-Pack = One Vaccine" sticker purchased in the U.S. and Canada, Pampers will provide UNICEF with funding for one life-saving tetanus vaccine in the developing world	Cultivating
Pantene Shampoo	7/13/2006	Pantene's campaign encourages people to grow, cut, and donate their hair to make wigs for women who have lost hair due to cancer treatment.	Cultivating
Pantene Shampoo	9/21/2010	Pantene will donate to help Children's Safe Drinking Water (CSDW) provide two billion liters of clean water in the developing world every year by 2020.	Cultivating
Parkay Margarine	10/4/2004	Parkay reformulated its products to remove trans fats.	Corrective
Pepsi Soda	7/5/2007	PepsiCo announced that it will shine a spotlight on recycling at the Live Earth New York concert and will make it easy for people to recycle their bottles and cans while offering information about how they can make recycling a part of their everyday lives.	Corrective
Pepsi Soda	1/22/2008	PepsiCo announced a major new grant made by the PepsiCo Foundation to the Earth Institute at Columbia University, one of the world's premier institutions dedicated to global sustainable development.	Compensating

Pepsi Soda	6/16/2009	The PepsiCo Foundation and United Nations World Food Programme (WFP), announced a strategic partnership aimed at enhancing the ability of WFP to deliver food and relief to the most vulnerable communities around the globe.	Cultivating
Pepsi Soda	1/14/2010	The PepsiCo Foundation announced it will donate \$1 million to the earthquake victims in Haiti.	Cultivating
Post Shredded Wheat	1/13/2005	Kraft Foods Inc. announced two new initiatives to increase the visibility of many of the more nutritious products in the company's portfolio including Post Shredded Wheat.	Corrective
Puffs	7/19/2011	Procter & Gamble Company will donate two cents to Communities In Schools to raise funds and increase awareness of the student dropout crisis in the U.S. for coupons redeemed for products including Puffs.	Cultivating
Seventh Generation Household Cleaner	11/7/2008	Seventh Generation teamed up with Know Your Source to make it easier for health practitioners, spas, health clinics and doctor's offices to access eco-friendly products.	Cultivating
Seventh Generation Household Cleaner	6/29/2010	Seventh Generation worked with Clean Water Action, in the fight to have phosphates removed from use in the household cleaning products industry.	Cultivating
Seventh Generation Detergent	7/25/2006	Seventh Generation is partnering with Greenpeace to train and empower dedicated students to become the next generation of leaders in the global movement for change.	Compensating
Seventh Generation Detergent	11/17/2011	Seventh Generation has announced that a new reformulation of its best-selling laundry liquids has received one of the first-ever USDA BioPreferred labels.	Corrective
Seventh Generation Diapers	1/11/2011	Gifts In Kind International with Seventh Generation announced a new campaign that aims to raise and distribute 10 million Seventh Generation diapers for families in need.	Cultivating
Shedd's Country Crock Margarine	6/22/2011	Country Crock has partnered with Wounded Warrior Project, an organization established to raise awareness and provide aid for injured service members.	Cultivating
Sparkle Paper Towels	10/20/2005	Sparkle was a sponsor of the Keep America Beautiful's Great American Cleanup, which helps to improve neighborhoods through clean-ups, green-ups, fix-ups, educational programs, and heightened awareness of the value of clean, green, communities.	Cultivating
Starbucks	7/29/2002	Starbucks, in partnership with Ford Foundation, Oxfam America and CEPCO (Oaxacan State Coffee Producers Network), announced an initiative to increase the supply of high-quality Fair Trade certified coffee.	Corrective
Starbucks	5/12/2005	To celebrant Fair Trade month, Starbucks presented Starbucks Fair Trade Certified coffee and offering tastings of Starbucks Fair Trade Blend coffee.	Compensating
Starbucks	10/2/2007	Starbucks, in conjunction with TransFair USA, promoted its Fair Trade coffee to help customers make a difference in farmers' lives and build awareness of TransFair USA's work.	Corrective

Stonyfield Farms Yogurt	10/29/2004	Recycline and Stonyfield Farm have announced that their innovative partnership has led to the recycling of more than 1 million Stonyfield Farm yogurt cups into new, Recycline Preserve brand products.	Corrective
Stonyfield Farms Yogurt	10/13/2010	Stonyfield Farms launched new packaging made from plants for its multipack cups.	Corrective
SunChips	4/23/2009	SunChips and National Geographic announced the launch of the Green Effect, a national initiative that encourages consumers to take their own small steps toward helping the planet by awarding five \$20,000 grants to help consumers turn their green ideas into reality.	Cultivating
Tide Detergent	2/4/2010	All profits from Tide vintage t-shirt sales during the month of February will be donated to disaster relief in Haiti, and Tide will match donations up to \$250,000.	Cultivating
Tom's of Maine Deodorant	7/29/2009	Tom's of Maine launched its new 24-hour, long-lasting deodorant, which combines a natural, vegetable-based formula, never tested on animals, and environmentally sensitive packaging.	Corrective
Tom's of Maine Deodorant	3/18/2010	Preserve, the leading recycled products company, partnered with Tom's of Maine to transform deodorant packaging into recycled products	Compensating
Tostitos Chips	11/22/2010	Tostitos announced the creation of the Tostitos Cesar Chavez Latino Scholarship Fund to benefit Latino students in the state of Arizona.	Cultivating
Trix Cereal	6/24/2004	In response to changing consumer needs, General Mills continues its tradition of innovation by offering reduced- sugar versions of three of its most popular kids' cereals. New reduced-sugar Trix, Cinnamon Toast Crunch and Cocoa Puffs provide the sweet taste and fun flavors kids love, with 75 percent less sugar than the original cereals.	Corrective
Viva Paper Towels	9/13/2006	VIVA will also donate a minimum of \$100,000 to Breast Cancer Research Foundation and will host an online auction of NASCAR memorabilia with proceeds benefiting BCRF.	Cultivating
Windex Household Cleaner	1/16/2008	SC Johnson has used its patented Greenlist process to continuously improve the ingredients used in Windex glass cleaner - and other SC Johnson products - to improve their environmental profiles.	Corrective
Yoplait Yogurt	2/9/2009	General Mills announced it will eliminate milk sourced from cows treated with the synthetic hormone also referred rBGH, in the production of its Yoplait® yogurts.	Corrective

Note: CSR initiatives were classified by a panel of 378 student respondents. In a laboratory setting, participants were randomly assigned small subsets of one to five CSR initiatives. Participants were provided with definitions of the three CSR types and were asked to classify each initiative as either Corrective, Compensating, or Cultivating CSR. To do so, participants read a press release of a CSR initiative, one at a time, and classified the initiative before proceeding. All press releases were categorized at least 6 times, and the Intraclass Correlation Coefficient (ICC) was .80, indicating good reliability (Portney and Watkins 2015).

WEB APPENDIX B

Addressing Selection Bias

In our main analysis, we have accounted for the endogeneity of the type of CSR actions chosen by firms as well as for the endogeneity of marketing mix variables used as control variables. We take an additional step to assess the potential importance of unobserved confounders in explaining our effects, by following the approach proposed by Oster (2019). This approach has grown increasingly popular in empirical research for two main reasons - i) it offers the researcher a means to answer the question - 'how large should unobserved selection be in a regression model, relative to the selection on observables - in order to overturn the main results?', and ii) it allows the researcher to present a lower bound on the treatment effect of interest, under the assumption of proportional selection on observables and unobservables. Building on the logic of Altonji et al. (2005), Oster (2019) argues that the robustness of estimates to omitted variable bias can be examined by observing movements in: (a) the coefficient of interest, and (b) model R-squared from specifications that either include or exclude control variables in a regression. Under the rationale that including "relevant" control variables (those that plausibly contribute to improving model R-squared, e.g., time fixed effects or marketing mix variables) would help alleviate omitted variables bias in a regression model (compared to the case when they are excluded), this approach enables the quantification of just how large the influence of selection on unobservables would need to be in a dataset, relative to selection on observables, to nullify the treatment effect of interest.

We estimate a regression with and without the control variables to enable this exercise. Following Oster's recommendations (Oster 2019), we find that the degree of selection on unobservables would need to be between 1.67-1.74 times that on observables in order to overturn our effect for corrective and cultivating goodwill CSR; above the generally accepted threshold of 1.0 (which corresponds to equal

proportional selection on observables and unobservables).⁵ The equivalent measure for Compensating CSR is 0.87 which is close but under the threshold of 1.0, implying a somewhat greater susceptibility of this estimate to unobserved selection. We estimated the model under equal proportional selection on observables and unobservables and found a lower bound for the treatment effect of 0.96% corresponding to Corrective CSR, while the corresponding estimates under proportional selection for Cultivating CSR is -2.06%. These results, presented in Table WB, further enhance our confidence that the estimates of the size of the effect of CSR (at least in the case of Corrective and Cultivating goodwill CSR) are unlikely to be driven by selection on unobservables.

DV = Log (Brand Sales)	Assessing coefficient stability to the presence of unobserved selection (Oster 2019)		
	Lower bound on the Treatment Effect corresponding to proportional selection	Relative degree of selection needed to overturn the treatment ($\beta_{lj} = 0$)	
Corrective CSR	0.96%	1.67	
Compensating CSR	-0.98%	0.87	
Cultivating CSR	-2.06%	1.74	

Table WB: Examining the Influence of Observable Covariates in Eliminating Unobserved Selection Bias

⁵ We use the STATA routine 'psacalc' developed by Emily Oster and follow her recommendations to set max- R^2 to 1.3 times the R^2 of the full model with the covariates included.

WEB APPENDIX C

Full Details of Experimental Studies 1 - 3

STUDY 1

Method. Participants in Study 1 were 181 undergraduate students who participated in exchange for course credit. To begin, participants were told that they would be asked to assess a product that they might find at a typical grocery store. Participants were told that they would see an image of the product and were asked to examine the packaging the way they might naturally were they at a store shelf for as long as they wished. Before seeing the product image, it was specified that the product participants would see was breakfast cereal, and that this particular brand had a reputation for being either "rather unnatural and unhealthy" (low CSR reputation condition) or "surprisingly natural and healthy" (high CSR reputation condition; counterbalanced). After reading this brand information, participants saw an image of an obscure, regional European breakfast cereal that had since been renamed and had its packaging updated. To further ensure the stimuli's originality and unrecognizability, the image was edited and the brand name changed even further. All participants saw the same package at this point in the study (see below for stimuli images). After viewing the package, participants were asked to rate their interest in purchasing the product using a 7-point scale anchored on "Definitely wouldn't buy" and "Definitely would buy". In addition, participants used a sliding scale to indicate their precise maximum willingness to pay for the product. The scale was anchored on zero dollars and ten dollars. All participants then proceeded to a filler task. The task took approximately four to five minutes to complete, and was unrelated to the focal study in any way.

Upon completion of this task, participants were asked to return to their consideration of the breakfast cereal seen earlier, and to imagine returning to the grocery store a few weeks later and seeing the product again. Participants were then shown the exact same product as before, however, the top left-hand corner of the box now featured a label announcing a new CSR initiative undertaken by the brand. In the "Correct" condition, this label read "Now made with whole grain and real honey!" In the Compensate condition, the announcement read "Now sponsoring 'Run 4 Fun USA!""

Finally, in the Cultivate condition, participants read that the brand was "Now sponsoring 'Pets 4 Vets USA!" Each of these CSR conditions were pretested and found similar appeal when provided outside the context of any particular product category (see below). After seeing this slightly updated product packaging, participants were again asked to rate their purchase intentions and willingness to pay. After this, participants were asked to rate the degree to which they felt that the initiative was a good fit for the company, would make a positive impact, and represented a "sincere interest from the company", rating their agreement on a 7-point scale anchored on "Not at all" and "Very much so". A manipulation check asking about participant's understanding of the firm's previous reputation was taken on a 7-point scale (anchored on "much worse than average" and "much better than average") and the study concluded.

Results. The manipulation check showed a significant difference between the favorable (M = 4.35) and unfavorable conditions (M = 2.03; F(1,179) = 122.4, p < .001) with no interaction with the CSR conditions (F(2, 175) = .718, p = .49). Thus, our manipulation was considered successful. The pre- and post- differences between the measures of purchase intention and willingness to pay were standardized and averaged (r = .476). This dependent variable was entered into an ANOVA using CSR condition, CSR reputation and their interaction as predictors. There was no significant main effect of CSR condition (F(2,175) = 2.00, p = .14), nor of CSR reputation (F(1,175) = .751, p = .39). However, the interaction between the two conditions was significant (F(2,175) = 6.88, p = .001). Specifically, in the "Correct" condition, the low-CSR reputation brand did not ($M_{HighCSRRep} = .190$; F(1,175) = 12.01, p = .001). There were no such differences between the CSR reputation conditions in either the "Compensate" ($M_{HighCSRRep} = .034$, $M_{LowCSRRep} = .$

-.138; F(1,175) = .239, p = .63) nor "Cultivate" conditions ($M_{HighCSRRep} = .082$, $M_{LowCSRRep}$ = -.236; F(1,175) = 2.23, p = .14). A follow-up series of simple t-tests confirmed that of the six different condition combinations, the only effects that significantly differed from zero or a nulleffect were those of the low-reputation brand in the Correct condition ($M_{LowCSRRep} = .552$ t = 2.55, p= .017) and the low-reputation brand in the Cultivate condition ($M_{LowCSRRep} = -.236$, t = -2.97, p = .005). Thus, the overall pattern of study results is consistent with model results.

Process. While we hypothesize significant indirect effects of CSR type on purchase intentions through perceived sincerity, we test the mediating effects of all three measured process variables: perceived fit, perceived impact, and perceived sincerity. Using a bootstrap analysis with indicator coding (PROCESS macro; Hayes and Preacher 2014), we found no significant conditional indirect effects through either perceived impact (Correct vs. Compensate: $a1 \times b1 = -.0747, 90\%$ C.I. = -.2310 to .0442, p > .10, Correct vs. Cultivate: a2 x b1 = .0224, 90% C.I. = -.1128 to .1630, p > .10) or perceived fit (Correct vs. Compensate: a1 x b1 = -.0273, 90% C.I. = -.1067 to .0233, p > .10, Correct vs. Cultivate: a2 x b1 = .0482, 90% C.I. = -.1067 to .0233, p > .10). However, the effect of perceived sincerity on purchase intentions was significant (β =.1306, t=2.80, p=.006) and there were significant indirect effects for the unfavorable firms for both Compensating (a1 x b1 = -.1081, 95% C.I. = -.3908 to -.0263, p < .05) and Cultivating actions (a2 x b1 = -.1164, 95% C.I. = -.2602 to -.0158, p < .05), relative to Corrective action. However, there were no such effects in the favorable CSR reputation condition. The index of moderated mediation was significant overall in the Compensate condition (a1 x b1 = -.1712, 95% C.I. = -.3908 to -.0263, p < .05) but not the Cultivate condition (a2 x b1 = -.0700, 95% C.I. = -.2218 to .0245, p > .05). Overall, both Compensating and Cultivating CSR actions were perceived to be significantly less sincere with the exception of clean firms performing Compensating CSR. This difference in perceived sincerity had a significant mediating effect on the change in participant's purchase intentions.

STUDY 2

Study 2 was a 3 (CSR Type: Correct, Compensate, Cultivate) x 3 (CSR Reputation: High vs. Low vs. Control) study design. Method.

Procedure. Participants in Study 1 were 176 individuals recruited from an online panel (30% female, average age = 35.2. Each participant received monetary compensation for their participation in the study. To begin, participants were told that they would be evaluating a regional coffee chain based on information that would be provided, with the name of the coffee chain changed to preserve

confidentiality. Participants read a description of a coffee chain that operated in multiple locations, had decent growth and a generally positive product evaluation (see below for verbatim stimuli). While all participants read the same basic information about the company, key details varied based on the participant's assigned condition (randomized and counterbalanced). In the favorable CSR reputation condition, the company was also portrayed as behaving very fairly toward its suppliers. In the unfavorable CSR reputation condition, it was instead made clear that the brand had unfairly leveraged its power to the detriment of its suppliers. In the control or "low salience" condition these details were omitted, and participants only received the more basic facts regarding the company. After reading this initial description of the company, participants how likely they would be to consider purchasing from the brand's, responding using a 7-point scale anchored on "Not likely at all" and "Very likely". After providing this initial rating, participants were then given one additional piece of information about the company regarding its recent engagement in one of three CSR initiatives. In the "Corrective" condition, participants read that the company announced an initiative to ensure fairer trade practices among their coffee growers. In the "Compensating" condition, the company announced it would donate a portion of its proceeds towards organizations that provided coffee growers with greater support, training, etc. Finally, in the "Cultivating" condition, the company announced that it would begin donating a portion of the proceeds to local arts and music programs. In all conditions, information on the real monetary cost incurred by the company was provided and held constant, and a pretest (N = 46) confirmed that these three initiatives each elicited positive responses from consumers and did not differ significantly from one another when evaluated without industry or company details (see verbatim stimuli below). After seeing this additional piece of information, participants were asked to rate their purchase intentions again using the same scale as before. In addition, participants were asked about their perceptions of the brand's sincerity, rating their level of agreement with three statements; "I feel that this initiative demonstrates the company's genuine interest in the public's well-being", "I feel that the company's real intentions are sincere", and "I feel like the company truly cares about the issue they've addressed." Each of these measures was collected using seven-point scales anchored on "strongly agree" and "strongly disagree".

Participants also rated five measures of the perceived fit of the CSR initiative with the brand. Finally, participants completed an attention check, provided their age and gender, and the study concluded.

Results. The difference between the pre- and post-CSR purchase intentions was taken as our primary dependent variable. An ANOVA on purchase intention change showed a significant interaction (F (4, 166) = 6.94, p < .001) and significant main effects of both CSR reputation (F (2,166) = 14.35, p < .001) and CSR type (F (2, 166, 6.48, p = .002). Consistent with the pattern of results of our empirical model, Corrective CSR had the most positive effect on brand attitude change (M = .855), followed by Compensating CSR (M = .333) while Cultivating CSR had the least (M = .274). These effects were most pronounced when CSR reputation was relatively less favorable. In the high CSR reputation condition the differences between Corrective (M = .182), Compensating (M = .143) and Cultivating CSR (M = .100) were all statistically indistinguishable (all p's > .79). The result was similar in the low reputation condition, with no significant contrasts (all p's > .27). In the unfavorable CSR reputation condition, Corrective action led to the highest improvements in purchase intentions (M = 2.13), and was significantly higher than the Compensating (M = .192; t = 6.06, p < .001). Compensating actions were also evaluated more favorably than Cultivating actions (t = 2.25, p = .025).

Process. The three measures of sincerity ($\alpha = .974$) were averaged, and an ANOVA on sincerity displayed a marginally significant interaction (F(4,167) = 2.28, p = .063) and significant main effects of both CSR reputation (F(2, 167) = 36.46, p < .001) but no main effect of CSR type (F(2, 166) = 1.60, p = .21). Overall, a higher reputation company was viewed as more sincere in its CSR intentions (M = 5.56) than a lower reputation company (M = 3.25) and higher than in the control condition (M = 4.94). Corrective CSR actions were seen as the most sincere, while Compensating actions were seen as the least sincere (M corrective = 4.91, M compensating = 4.39, M cultivating = 4.55). There were no significant contrasts in the high CSR reputation condition (all p's > .45), while in the low CSR reputation condition there was a significant difference between Corrective and Cultivating CSR (M corrective = 3.69, M cultivating = 2.64; t = 2.13, p = .035) and a

marginally significant difference between Compensating and Cultivating CSR ($M_{\text{Compensating}} = 3.43$, $M_{\text{Cultivating}} = 2.64$; t = 1.74, p = .085). It was also interesting that Cultivating CSR was viewed as the most sincere in the control condition (M = 5.50), followed by Corrective (M = 5.17) while Compensating was seen as the least sincere (M = 4.13). The contrast between Corrective and Compensating was marginal (t = 1.82, p = .071), and the contrast between Cultivating and Compensating was significant (t = 2.28, p = .024) Perceived sincerity, in turn, significantly predicted purchase intentions ($\beta = .142$, t = .289, p = .004). A bootstrap analysis (PROCESS model 8) found a significant indirect effect for Cultivating actions in the low CSR reputation condition (a1 x b1 = .149, 90% C.I. = -.3572 to -.0055). All of the other indirect effects were directional, but not significant. Thus, Study 2 finds partial support for our proposed process.

Alternative test of Process. Perceived fit of the CSR initiative measures was also averaged ($\alpha = .929$) and tested as an alternative mediator. However, the effect of fit on purchase intentions was not significant ($\beta = -.021$, t = -.3103, p = .756), and thus there were no significant nor marginally significant indirect effects using fit as an alternative process variable.

STUDY 3

Study 3 was a 3 (CSR Type: Correct, Compensate, Cultivate) x 2 (CSR Reputation: High vs. Low) study design.

Method. Participants in Study 3 were 150 participants from an online panel who were paid for their participation. To begin, participants were introduced to an ostensibly real brand of bottled water. However, participants were told that in order to protect company privacy the brand would be referred to using the pseudonym "Aqua Springs". Half of the participants (randomized, counterbalanced) read that this brand was performing very well in terms of its environmental responsibilities, while the other participants read that the brand was lagging well behind the industry standards regarding its environmental impact (verbatim stimuli available below). After reading this introduction to the brand, based on what they understood, participants were all asked to rate the likelihood that they would purchase from the brand, using the same scale as in Study 2. At this point, participants read a piece of recent news about the firm, which detailed the announcement of a new CSR initiative. This CSR initiative either involved reducing the amount of plastic used in its bottles (Correct), donating a portion of proceeds to a plastic bottle recycling program (Compensate), or donating a portion of proceeds to helping local schools (Cultivate). In each case, as many pertinent details were held constant as possible including the actual financial cost that the program would incur to the brand.

After reading about the brand's CSR initiative, participants were again asked to provide their purchase intentions and then responded to two potential process measures. Participants were first asked about the sincerity of the brand's motives by rating their level of agreement with three statements; "I feel that this initiative demonstrates the company's genuine interest in the public's well-being", "I feel that the company's real intentions are sincere", and "I feel like the company truly cares about the issue they've addressed." Each of these measures were collected using 7-point scales anchored on "strongly agree" and "strongly disagree".

Three measures of perceived fit of the initiative with the company were also taken. These were "To what extent is this initiative consistent with your image of (the brand)?", "To what extent does it make sense for (the brand) to promote this initiative?", and "To what extent is this initiative a good fit for (the brand)?" Participants provided demographic information including gender, age, and race and the study concluded.

Results. The difference between the pre- and post-CSR purchase intentions was again taken as the primary dependent variable. An ANOVA on purchase intention change showed a significant interaction (F (2, 144) = 3.01, p = .052) and significant main effects of both CSR reputation (F(1,144)=6.94, p = .009) and CSR type (F (2, 144) = 3.07, p = .049). Consistent with the previous results, Corrective CSR had the most positive effect on brand attitude change (M = .821), followed by Compensating CSR (M = .777) and finally Cultivating CSR (M = .267).

These effects were again most pronounced when CSR reputation was less favorable. In the high CSR reputation condition the differences between Corrective (M = .296), Compensating (M = .435) and Cultivating CSR (M = .333) were all statistically indistinguishable (all p's > .69). In the low CSR reputation condition, Corrective action most positively affected purchase intentions (M = .296)

1.35), was directionally higher than the Compensating (M = 1.12; t = 0.65, p = .52) and significantly higher than the Cultivating conditions (M = .200; t = 3.30, p = .001).

Process. The three measures of sincerity ($\alpha = .974$) and fit ($\alpha = .834$) were averaged. An ANOVA on perceived sincerity of motive was significant, with significant main effects of CSR reputation (*F* (1,144) = 56.10, *p*<.001) and CSR type (*F* (2,144) = 0.32, *p* = .032). The brand in the high reputation condition was seen as more sincere overall (*M* - 6.50) than in the low reputation condition (*M* = 5.89). Corrective CSR (*M* = .633) was seen as directionally more sincere than Compensating (*M* = 6.18; *t* = 1.46, *p* = .14) and significantly more sincere than Compensating CSR (*M* = 6.07; *t* = 2.65, *p* = .009). The main effect contrast between Compensating and Cultivating CSR was not significant (*t* = 1.15, *p* = .253). The interaction on perceived sincerity also was directional but not significant (*F* (1,144) = 1.67, *p* = .19). However, while contrasts in the high CSR reputation condition were all non-significant (*p* ' s > .47), when a brand had a lower reputation there were significant contrasts between Corrective CSR (*M* = 6.13) and Compensating CSR, (*M* = 5.83; *t* = 2.12, *p* = .036), and between Corrective and Cultivating CSR (*M* = 5.71; *t* = 3.03, *p* = .003). The contrast between Compensating and Cultivating was not significant (*t* = 0.90, *p* = .37). Again, when brands had a lower reputation, there were significant differences between the CSR types in the inferred sincerity behind the CSR initiatives.

The effect of perceived sincerity significantly predicted purchase intentions ($\beta = .153$, t = 2.25, p = .026). A bootstrap analysis (PROCESS model 8) with indicator coding returned a nonsignificant index of moderated mediation for one contrast (Correct to Compensate: a1 x b1 = -.138, 95% C.I. = -.4301 to .0453, p > .05), and a marginally significant index of moderated mediation for the other (Correct to Cultivate: a2 x b1 = -.1478, 90% C.I. = -.3699 to -.0003), p < .10). The difference between Corrective and Cultivating CSR actions was significantly mediated by perceived sincerity in the focal low CSR reputation condition (95% C.I. = -.4038 to -.0412, p < .05). Thus, there is mixed process evidence in Study 3.

Alternative Test of Process. Unlike Studies 1 and 2, there was also evidence of perceived fit as a potential mediator. The ANOVA on perceived fit was marginally significant (F(1,144) = 2.95,

p<.056, and the index of moderated mediation was similarly insignificant for the Correct-Compensate contrast (a1 x b1 = -.0395, 95% C.I. = -.3760 to .1775, p > .05) and significant for the Correct-Cultivate contrast (a2 x b1 = -.3518, 95% C.I. = -.8494 to -.0341), p < .05). Overall, Cultivating actions were seen as a relatively worse fit for both high and low reputation brands ($M_{HighReputation} = 5.57$, $M_{LowReputation} = 3.47$) than Corrective ($M_{HighReputation} = 6.10$, $M_{LowReputation} = 4.96$) and Compensating CSR ($M_{HighReputation} = 6.16$, $M_{LowReputation} = 4.76$). Thus, perceived fit has some evidence in Study 3 as a process variable, however, the overall effect in the meta-analysis across all three studies was not significant.

STUDY STIMULI

STUDY 1

Introduction: In the following study you will simply be asked to evaluate a product that you might find at a typical grocery store. We ask that you take a moment to check out the product package the way you might at a store shelf before making a decision. Favorable CSR Reputation Condition: The product you will be seeing is an actual breakfast cereal called "Honey Monster Puffs" and has an unfortunate reputation for being rather unnatural and unhealthy. We ask that you inspect the package as you might if you were considering purchase. Unfavorable CSR Reputation Condition: The product you will be seeing is an actual breakfast cereal called "Honey Monster Puffs", and has an unfortunate reputation for being rather unnatural and unhealthy. We ask that you inspect the package as you will be seeing is an actual breakfast cereal called "Honey Monster Puffs", and has an unfortunate reputation for being rather unnatural and unhealthy. We ask that you inspect the package as you will be seeing is an actual breakfast cereal called "Honey Monster Puffs", and has an unfortunate reputation for being rather unnatural and unhealthy. We ask that you inspect the package as you might if you were considering making a purchase.

Figure WC1: Corrective



Figure WC2: Compensating



Figure WC3: Cultivating



STUDY 2

Unfavorable CSR Reputation Condition: "Recently, a regional coffee chain we will refer to as 'Hill Country Coffee' has steadily made gains in popularity, sales, locations, and market share. Their products and service are highly rated, and their locations are chic, convenient and comfortable. They attract a broad customer base. However, it is becoming increasingly understood that Hill Country has been treating their supplying farmers rather poorly. Their foreign-based network of individual growers has been markedly underpaid and pressured into very one-sided contracts. For the moment, these contracts essentially limit the farmers to accepting the unfair prices Hill Country will pay or not selling anything at all. As a result, many of the farmers are barely getting by, while Hill Country has been able to keep a very healthy profit margin."

Favorable CSR Reputation Condition: "Recently, a regional coffee chain we will refer to as 'Hill Country Coffee' has steadily made gains in sales, locations, and market share. Their products and service are highly rated, and their locations are chic, convenient and comfortable. They attract a broad customer base. In addition, it is becoming increasingly understood that Hill Country is very good to their supplying farmers. Their foreign-based network of individual growers have been very kindly compensated and are provided with very fair contracts. For the moment, these contracts essentially ensure that the farmers have a good outlet for their product at equitable prices provided by Hill Country. As a result, many of the farmers have been able to provide for their families as they have hoped, while Hill Country has been able to keep an adequate profit margin on their domestic sales."

Corrective Condition: "Even after all this, the CEO announced that in an effort to be better citizens, the company had made changes at several levels of the company and set a goal to ensure that 100% of their coffee be fair-trade certified within 3 years. In addition, the company would ensure good compensation for all of its farmers and suppliers. It is estimated that the company will spend several million dollars on this initiative."

Compensating Condition: "Even after all this, the CEO announced that in an effort to be better citizens, the company would be donating a portion of proceeds to various education, training, supply, and subsidy programs that aid coffee farmers internationally. It is estimated that the company will spend several million dollars on this initiative."

Cultivating Condition: "Even after all this, the CEO announced that in an effort to be better citizens, the company would be donating a portion of proceeds to the arts and music scenes of their local communities. It is estimated that the company will spend several million dollars on this initiative."

STUDY 3

Introduction: "Thank you for choosing to take this survey. In this study, we are interested in your opinion regarding an actual, relatively recent decision involving a brand of regionally sold bottled spring water. To protect company privacy, we will refer to the brand as "Aqua Springs". Please answer honestly, as your responses are completely anonymous." Unfavorable CSR Reputation Condition: "Aqua Springs sources its water from carefully selected natural springs. Aqua Springs is available in a variety of sizes including half-pint (8 oz.), single-serve (16.9 oz.), and five-gallon bottles for the home or office. Its most popular item is the single-serve (16.9 oz.) bottle. The average weight of an empty single-serve (16.9 oz.) plastic bottle is 20 grams, meaning Aqua Springs uses the highest amount of plastic per bottle in the industry, making Aqua Springs one of the highest net contributors to pollution and waste from plastics."
Favorable CSR Reputation Condition: "Aqua Springs sources its water from carefully selected natural springs. Aqua Springs is available in a variety of sizes including half-pint (8 oz.), single-serve (16.9 oz.), and five-gallon bottles for the home or office. Its most popular item is the single-serve (16.9 oz.) bottle. The average weight of an empty single-serve (16.9 oz.) plastic bottle is 10 grams, meaning Aqua Springs uses the lowest amount of plastic per bottle in the industry, making Aqua Springs one of the lowest net contributors to pollution and waste from plastics."

Low-salience CSR Reputation Condition: "Aqua Springs sources its water from carefully selected natural springs. Aqua Springs is available in a variety of sizes including half-pint (8 oz.), single-serve (16.9 oz.), and five-gallon bottles for the home or office. Its most popular item is the single-serve (16.9 oz.) bottle. The average weight of an empty single-serve (16.9 oz.) plastic bottle is 10 grams.

Corrective Condition: "Aqua Springs is aware of the increased national mindfulness regarding the environmental footprint of plastic waste. In an effort to demonstrate its commitment to social responsibility, an upcoming press release will announce the bottled water brand's most recent initiative. Aqua Springs will introduce a new lightweight single-serve (16.9 oz.) bottle that reduces the amount of plastic per bottle by 30%. It is estimated that this change will cost Aqua Springs approximately \$150,000 annually but will reduce the amount of plastic waste added to landfills by about 1 million pounds each year."

Compensating Condition: "Aqua Springs is aware of the increased national mindfulness regarding the environmental footprint of plastic waste. In an effort to demonstrate its commitment to social responsibility, an upcoming press release will announce the bottled water brand's most recent initiative. A portion of the proceeds from the sales of single-serve (16.9 oz.) bottles will be donated to a program focused on reclaiming and recycling plastic bottles. It is estimated that this change will cost Aqua Springs approximately \$150,000 annually, but will reduce the amount of plastic waste added to landfills by about 1 million pounds each year."

Cultivating Condition: "Aqua Springs is aware of the increased national mindfulness regarding the environmental footprint of plastic waste. In an effort to demonstrate its commitment

to social responsibility, an upcoming press release will announce the bottled water brand's most recent initiative. A portion of the proceeds from the sales of single-serve (16.9 oz.) bottles will be donated to help local schools. It is estimated that this change will cost Aqua Springs approximately \$150,000 annually but will contribute to educational programs for local students."

Pretest. Procedure A pretest (N=46) of stimuli was run to see how participants felt about each initiative as a stand-alone action, independent of context, company, or industry. Participants were recruited from an online panel and paid for their participation. Participants were not given any information about the firm or acting entity, but were simply asked how they felt about each potential CSR initiative. Participants were given descriptions of each (i.e., "Making a product healthier by using real honey and whole grain", "Donating to an organization that supports farmers"), and responded using 7-point scales anchored on "Very unfavorably" and "Very favorably". Demographic variables including gender, race, education and political inclination were taken and the study concluded. These demographic variables did not meaningfully affect analysis and are not discussed further. Results Corrective, Compensating, and Cultivating stimuli for each study were compared in a series of paired samples T-tests (Table WC.1). The only significant difference involved the Compensating stimuli in Study 2, such that the Compensating stimuli were viewed less favorably than both the Corrective and Cultivating stimuli. However, given the less-focal nature of the Compensating CSR types, and that this particular difference would have likely resulted in a suppression of our primary predictions and pattern, this difference was not necessarily concerning. Two other marginal differences also involved Compensating stimuli, one of which again would have suppressed predictions. Most importantly, preference for the two focal conditions, Corrective and Cultivating CSR actions, did not differ in any of the studies. Thus, stimuli were considered appropriate, such that predicted and demonstrated effects in the studies would not be due to differences in the attractiveness of the initiatives alone. Rather, lay theories about firm responsibility and appropriate CSR response appear to be stronger drivers of the results in the main studies.

	Study Set Overview					
Study	Comparison	Difference	t	Sig. (2-tailed p val.)		
	Correct vs.	0.304	1.762	0.085		
Study 1	Compensate					
	Correct vs.	0.348	1.520	0.1361		
	Cultivate					
	Compensate vs.	0.043	0.179	0.859		
	Cultivate					
	Correct vs.	0.804	3.409	0.001		
Study 2	Compensate					
	Correct vs.	0.174	0.709	0.482		
	Cultivate					
	Compensate vs.	-0.630	-3.275	0.002		
	Cultivate					
	Correct vs.	0.261	1.273	0.20		
Studies 3 and 4	Compensate					
	Correct vs.	-0.065	-0.339	0.73		
	Cultivate					
	Compensate vs.	-0.326	-1.853	0.070		
	Cultivate					

Table WC1: Pretest Results

Table WC2: Study 2 - Changes in Purchase Intent and Contrasts

Study 2 - Changes in Purchase Intent			Study 2 - Contrasts			
	Favorable Rep.	Unfavorable Rep.		Favorable Rep.	Unfavorable Rep.	
Correct	-0.190	$0.552^{x,a,b}$	Correct vs. Zero	t = -1.14, p = .26	t = 2.55,	
					p = .017	
Compensate	-0.034	-0.138^{a}	Compensate vs. Zero	o t =282, p = .78	t = -1.48,	
Cultivate	0.082	$-0.236^{x,b}$	Cultivate vs. Zero	t = .402, p =.69	p = .15 t = -2.97, p = .005	
a,b = significantly different from each other at p < .01 level			Correct vs. Compensate $t =758$,		t =3.12,	
				p = .002		
x = significantly different from zero at p < .05 level			Correct vs. Cultivate $t = -1.28$, $p = .20$		t = 3.70,	
					p < .001	
			Compensate vs. C	t =.469, p = .64		
				p =.59		

WEB APPENDIX D

Illustration of the Moderating Role of CSR Focus and CSR Reputation

We illustrate below the moderating effects of CSR Focus (Environmental vs. Social) and CSR Reputation. We first separately plot the effects of socially focused (Figure WD1) and environmentally focused CSR (Figure WD2). However, while there was a balance of social and environmental CSR initiatives for both Corrective CSR (52% environmental) and Compensating CSR (45% environmental), there was a much higher prevalence of social initiatives among Cultivating CSR (only 23% environmental). Thus, we also provide a more representative summary plot of the focal 2-way interaction between CSR type and CSR reputation accounting for the average environmental CSR effect (Figure WD3). That is, the effect of environmental CSR is weighted using the share of cases of environmental CSR present in each CSR type.

The average effect of Corrective CSR on sales, across both environmental and social CSR, is just under 3.4%, with lower CSR reputation firms benefiting most from Corrective CSR actions. The average effect for Compensating CSR is slightly lower, at 3%, and is similarly more pronounced among lower reputation brands. It is worth noting, however, that environmentally focused Corrective CSR enjoyed the highest average returns to sales (about 5.5%) of any CSR type, while returns to social Corrective actions were much lower (about 1%).

Environmental and social Cultivating CSR behaved differently, however, with environmentallyfocused Cultivating efforts actually boosting sales by about 1.6%. Nonetheless, because a large majority of Cultivating CSR observed in this dataset is social in nature, as stated (about 77%), the overall effect of Cultivating CSR is negative, as socially aimed Cultivating CSR was the least effective type of initiative overall, averaging a loss of 3.5%.



Figure WD1: Moderating Effect of Social CSR Focus

Figure WD2: Moderating Effect of Environmental CSR Focus





Figure WD3: Moderating Effect of Social CSR Reputation

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