Examining consumers' responses to corporate social responsibility addressing childhood obesity: The mediating role of attributional judgments

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A B S T R A C T

Food marketers have responded with numerous self-regulatory actions intended to address childhood obesity. While research on corporate social responsibility (CSR) generally provides strong evidence with regard to the economic benefits enjoyed by socially responsible corporations, it is unclear how and why consumers respond to different levels of CSR, especially in the food industry. Our research examines the effects of CSR activities, intended to combat childhood obesity, on consumers' company evaluations and subsequent purchase intentions, while assessing the mediating role of attributions, in a product-failure setting. Results indicate that a food company's high commitment toward a major social issue may trigger less blame to the food marketer for a product failure, which in turn positively affects consumers' attitudes toward the company. Our findings offer strong evidence that food corporations can truly do well by doing good.

1. Introduction

Corporate social responsibility (CSR) has become an imperative business practice in today's national and global marketplace (Carvalho, Sen, de Oliveira Mota, & de Lima, 2010). This view derives not only from companies' obligations to enhance society's well-being, but also from their capability to prosper, increase competitive advantage, and improve company performance. Academics and practitioners alike have realized that CSR is more than an ethical imperative, it also represents an economic requirement in today's marketplace (Sen & Bhattacharya, 2001); this business practice being incorporated into long-term strategic plans to maintain and/or enhance market performance (Mahoney & Thorne, 2005; Tian, Wang, & Yang, 2011). Moreover, the literature on CSR suggests a well-established link between CSR and consumers' attitudes toward the company and intentions to repurchase its products (Inoue, Funk, & McDonald, 2017). As Sen, Du, and Bhattacharya (2016) argue in their review of the substantial work on corporate social responsibility, there is a strong consensus among CSR scholars that consumers make their purchases based on the company's socially responsible behavior. Importantly, CSR-related outcomes that include increased loyalty and purchase intentions, willingness to pay premium prices, and positive company and/or product evaluations, unequivocally contribute to enhanced firm financial performance (Peloza & Shang, 2011). Nevertheless, consumers' CSR awareness remains considerably low (Park, Kim, & Kwon, 2017). A strong belief in the literature is that CSR should be done right (Carvalho et al., 2010) and consumers' responses to CSR depend on how corporations manifest their CSR (Green & Peloza, 2011). Consumers do not perceive all CSR actions in the same manner (Andreu, Casado-Díaz, & Mattila, 2015); this reality merits further attention (Green & Peloza, 2011). Different levels of CSR produce different stakeholder reactions (Torugsa, O’Donohue, & Heckler, 2012); this insight should be considered when predicting CSR critical outcomes such as attitudes and purchase intentions (Kim, 2017).

In their systematic review of corporate social responsibility, Peloza and Shang (2011) called for research that explores the effects of various CSR activities on consumer attitudes. This is instrumental because different CSR initiatives may be perceived as higher or lower commitments to a cause, which in turn are expected to lead to more positive or negative consumer responses. These authors further argue that philanthropy is the well-researched CSR initiative, while business practices (e.g., environmental protection; socially responsible behavior) lag behind. Additionally, environmental protection practices, such as pollution levels, have been the most popular forms of business practices.
researched in the CSR literature.

Our research aims to address the aforementioned gaps by examining the impact of socially responsible business practices on consumers’ attitudes and subsequent behaviors toward a company, by varying levels of CSR. Our study of the food industry also advances the CSR literature by analyzing consumers’ reactions to a category of CSR activities that needs further research – i.e., related to the business practices of a firm; notably, we examine CSR actions intended to solve a major, compelling issue (i.e., childhood obesity) different from environmental sustainability.

Consumers’ responses to CSR go beyond purchase and purchase intentions, to include advocacy behavior, consumers’ CSR-based resistance to negative information about a company or its products (e.g., product failure; product-harm crisis; Sen et al., 2016). Specifically, corporate social responsibility may protect a company by making consumers to attribute a product-harm crisis to other circumstances rather than to the company. In their review of CSR studies, Sen et al. (2016) argue that a better understanding of this advocacy behavior is needed and both conceptual and empirical studies are essential in this realm. Therefore, our research fills this gap by focusing on the extent to which CSR may operate as an insurance policy, by analyzing consumers’ attributions of responsibility after a product failure. Specifically, we empirically examine the effects of CSR on attributions of responsibility in a product failure setting; we then test the mediating impact of CSR, through attributions of responsibility, on company evaluations and subsequent purchase intentions.

In this study, we integrate three literature streams: (1) the relationship between CSR and attributional judgments; (2) the impact of CSR on consumer behavior; and (3) the effects of attributions on consumer behavior. This paper proceeds as follows: first, we review the relevant literature and derive our hypotheses. Next, we present the methodology and empirical findings. Lastly, we discuss the managerial and theoretical implications, limitations, and future research.

2. Conceptual framework

2.1. CSR commitments in the food industry

Childhood obesity has become progressively important to the food industry, due to the critical role that food marketing has on this major, and increasingly global, problem (Moore, 2013; Seiders & Petty, 2007). A concerning conclusion is that marketing tactics trigger children’s unhealthy food choices, especially when sales promotions (i.e., toy premiums) are included in companies’ promotional efforts (Goldberg & Gunasti, 2007; McAlister & Cornwell, 2012). Almost 20% of parents who visited fast-food restaurants reported that their children asked for the toys provided with kids’ meals (Rudd Center, 2010). The fast food industry spent $341 million dollars (in 2009) on toys to distribute with children’s meals (Ottlen, 2014). Subsequently, food marketers have been encouraged to demonstrate responsible promotional strategies in addressing the current obesity issue.

In the food industry, to address the increased concerns about childhood obesity, companies have engaged in various forms of CSR. For example, major food and beverage manufacturers have created the Children’s Food and Beverage Advertising Initiative (CFBAI), which is a voluntary self-regulatory program whereby food companies (e.g., PepsiCo, McDonald’s, Coca-Cola, Kellogg’s) pledged to devote their advertising, primarily directed at children under 12, to healthier food products and/or to messages that encourage good nutrition or healthy lifestyles (Council of Better Business Bureaus, 2016). These industry self-regulatory initiatives show that some progress is being made to address the obesity problem in the US; however, public health researchers and consumer advocates have addressed their concerns over the exclusion of critical marketing strategies, such as sales promotions (Moore, 2013). For example, while companies like McDonald’s have committed to promote healthier product offerings – kids’ meals that include more fruits, a smaller size of fries, and reduced calories and sodium – they continue to offer sales promotions for products that are considered less healthy. Conversely, Jack in the Box, although not a CFBAI member, decided to pull its toys from children’s meals, earning various consumer advocates’ admiration (Slleston, 2011).

Thus, it appears food marketers show different levels of commitment to solve the problem of childhood obesity; while these CSR practices clearly illustrate these companies’ pledge to fight this social issue, they strictly adhere to the self-regulations prescribed by the CFBAI program. Conversely, other businesses have responded by promoting healthier options for children and eliminating promotion of less-healthy foods to this target market (Strom, 2011; York, 2007), which exceed the CFBAI program’s demands. Offering toy premiums only with kids’ meals that meet stricter nutritional guidelines has been suggested as a good compromise that the food industry could make to balance the success of toy premiums against concerns about their impact on childhood obesity (McAlister & Cornwell, 2012).

Consumers are aware that companies use aggressive food marketing to children in order to increase sales and profits; therefore, those businesses that adopt radical changes to their promotional strategies and go beyond minimum self-regulations may be perceived as truly concerned about obesity and more committed to fight this problem. For instance, companies that eliminate the advertising of poor-nutritional products are viewed as less altruistic and putting the customers and society’s interests first; moreover, these values-driven motives suggest a high commitment to a cause (Ellen, Webb, & Mohr, 2006; Quilliam, 2008).

Given the literature reviewed above, a firm’s CSR initiative to eliminate toy premiums with unhealthy foods, in addition to promoting healthier products, will be viewed as the company’s high commitment toward childhood obesity, whereas the decision to promote healthier products will be referred to as a low commitment to this issue.

2.2. Product failure in the current context

Following a product purchase, consumers may experience two outcomes: positive (i.e., product success) and negative (i.e., product failure). Most importantly, consumers engage in attributional conclusions relative to why the outcome is positive or negative, which in turn influence their attitudes and behavior toward a company (Weiner, 2000). Individuals engage in causal attributions mostly when they encounter product failure or a negative product outcome (Weiner, 2000); negative information “instinctively motivates relatively high attributional activity” due to its potential threat to individuals’ welfare (Griffin, Babin, & Attaway, 1996, p. 315).

Any product-related problem has been used to depict a product failure (Folkes, 1984; Folkes & Kotsos, 1986). Product failures may vary in severity; some issues might concern the appearance of the product and others might result in any kind of physical harm to consumers (Kardes, Herr, & Nantel, 2006). Examples of such negative product outcomes, in the marketing literature, include: taste (Folkes, 1984; Weiner, 2000), flight delays (Folkes, Koletsky, & Graham, 1987; Weiner, 2000), ineffective weight-loss drinks (Curren & Folkes, 1987; Folkes, 1984), and insufficient nutrients in baby formula, resulting in retardation (Berry, 2017). Likewise, we use the nutritional issues (i.e., an excess of calories, sodium, fat, and sugar) of a kids’ meal to illustrate a product failure or a negative product-related outcome. The role of high-sugar, -sodium, -calories, and -fat products in childhood obesity has been made visible by the media and various government regulations, which has created consumer awareness of these product-related issues.

2.3. The effects of CSR on attributions of responsibility

In their review of the substantial work on CSR, Sen et al. (2016) argue that previous research on CSR and consumer attributions has
focused predominantly on consumers' attributions about a firm's motives for engaging in socially responsible actions. Consumers, however, spontaneously construct attributions of blame, as well, especially when confronted with product failures (Folkes, 1984; Folkes & Kotsos, 1986). More germane to our study, when consumers construct these attributions, they rely on information about CSR (Klein & Dawar, 2004).

When companies embark on CSR activities that support an issue to which they may have contributed (e.g., support for cancer by tobacco companies, support for childhood obesity by fast food corporations), consumers are perhaps aware that the firm has a negative image and tries to improve it through the CSR initiative (Yoon, Gürhan-Canli, & Schwarz, 2006). Moreover, whether or not consumers perceive the company as being sincere and truly committed to solve the issue influences their attributional judgments and behavior. In fact, consumers' beliefs about a company's position on CSR may spill into attributions of responsibility for a product failure (Brown & Dacin, 1997; Klein & Dawar, 2004).

In sum, previous research suggests that CSR initiatives impact consumers' attributional judgments. But how will these business practices influence attributions of responsibility, especially in a product failure context? Researchers in the social psychology demonstrated that people's impressions about their partner can affect attributions and consequent behavioral outcomes (Berscheid & Walster, 1978; Van Lange & Kuhlman, 1994). Favorable impressions of a partner cause individuals to refrain from self-serving bias (i.e., an attributional bias that refers to individuals' tendency to blame others for a negative outcome); explicitly, when people have a positive perception about their partner, they are less likely to blame him/her for a co-produced failure (Sedikides, Campbell, Reeder, & Elliot, 2002). In a firm-customer setting, these lines of social psychology research suggest that consumers who have a positive impression of a firm, which may happen when companies practice proactive CSR, possibly will have a lower tendency to blame the company when a product failure occurs. Consequently, consumers' self-serving bias is likely reduced when CSR behavior is perceived as a high (versus low) commitment to combat a major social issue, such as obesity. In support of this view, Du, Bhattacharya, and Sen (2010) argued that consumers are likely to be resilient to negative company news when the firm is viewed as a good corporate citizen. It is therefore hypothesized that:

**H1.** CSR will be negatively related to attributions of responsibility. Specifically, when CSR is perceived as a company's high commitment, versus a low commitment, to a social issue, consumers will ascribe less responsibility to the company for a product failure.

### 2.4. The effects of CSR on company evaluations

The corporate social responsibility literature attests to the positive effects of CSR on consumers' responses; namely, firms that exceed individuals' expectations, due to their socially responsible actions, are likely to enjoy more positive attitudes and increased behavioral intentions (Creyer & Ross, 1997; Pyu, 1998; Zeithaml, Berry, & Parasuraman, 1993). Experimental research has generally showed that CSR has a positive impact on consumers' evaluations of companies. For example, Brown and Dacin (1997) found that high levels of CSR lead to more positive evaluations of the company. Consumers' responsiveness to CSR was also tested by Mohr and Webb (2005), and results showed that a high level of socially responsible behavior led to more favorable evaluations of the company when compared to a low level of such action. Tian et al. (2011) also found that a higher level of consumers' perceived CSR was associated with higher company ratings; most importantly, consumers showed a more favorable attitude toward a company when proactive environmental CSR was implemented in the food industry (Kim, 2017). Lastly, retailers who were viewed as having a high commitment to their CSR initiatives enjoyed increased levels of consumer evaluations (Park et al., 2017).

Evidently, a large body of research has stressed that CSR programs, particularly those that illustrate a corporation's true dedication to a social issue, enhance consumer evaluations of companies (Ellen et al., 2006; Kim, 2017; Park et al., 2017; Romani, Grappi, & Bagozzi, 2013; Sen & Bhattacharya, 2001; Tian et al., 2011). Thus, we suggest a positive effect of CSR actions on consumer attitudes toward a company. We hypothesize that a socially responsible corporate activity, perceived as a high (versus low) commitment to combat the problem of obesity, will lead to higher evaluations of the company.

**H2.** CSR will be positively related to company evaluations. Specifically, when CSR is perceived as a company's high commitment, versus low commitment, to a social issue, consumers will show higher levels of company evaluations.

### 2.5. Attributions of responsibility and company evaluations

Attribution theory suggests that attributions of responsibility for a product failure affect consumers' cognitive and affective responses toward companies and their products (Griffin et al., 1996; Richins, 1984, 1985). It appears that consumers generally express negative attitudes toward a company when the blame for a negative encounter is attributed to the firm (Folkes, 1984). Along the same lines, Richins (1983) argued that the higher the blame attributed to the marketer, for a product-related problem, the higher the likelihood that the company ratings will be lower. Similarly, Tsios, Mittal, and Ross (2004) confirmed the direct and negative effects of responsibility on consumers' satisfaction with a company. Therefore, we hypothesize that:

**H3.** Consumers' attributions of responsibility will be negatively related to company evaluations. Specifically, higher levels of responsibility attributed to the company for a product failure, lead to consumers' lower levels of company evaluations.

### 2.6. Mediating effects of attributions of responsibility

We hypothesize and test the role of attributions of responsibility as the underlying mechanism that explains consumers' responses to perceived CSR. It has been demonstrated that consumers spontaneously build attributions of blame for product failures (Folkes, 1984; Folkes & Kotsos, 1986) and these attributions evidently impact consumers' attitudes toward a company (Klein & Dawar, 2004). Typically, consumers have a higher tendency to blame a firm for a negative encounter or product failure due to a self-serving bias (Bendapudi & Leone, 2003). However, consumers' beliefs about a company's position on CSR may spill over into attributional judgments in a way that benefits the company. Similarly, Klein and Dawar (2004) found a significant impact of CSR on the causal dimensions of attributions; for example, when prior CSR was positive, the product-harm crisis was judged as more external to the firm and attributions of blame to the company were consequently, significantly lower. Understanding attributional judgments is particularly important as we know they influence consumers' evaluations of the company (Walker, Heere, Parent, & Drane, 2010). Thus, we extend this line of research and propose that CSR will directly influence and moderate attributions of responsibility in a product failure setting, which ultimately should benefit the company due to higher consumer ratings. Following this line of logic, we suggest that attributions of responsibility play a mediating role between CSR activities and company evaluations.

**H4.** Consumers' attributions of responsibility will mediate the relationship between CSR and company evaluations.

In addition to company evaluations, purchase intentions represent another important factor that impacts company performance; especially that, generally, the cost of retaining existing customers is less expensive than attracting new customers (Maxham, 2001; Spreng, Harrell, &
Mackoy, 1995). Much research attests to the direct and positive impact of consumers’ attitudes toward a brand/company on their purchase intentions (e.g., Cronin, Brady, & Hult, 2000; Hartmann & Apaolaza-Ibáñez, 2012; Klein & Dawar, 2004; Spears & Singh, 2004). We similarly expect that company evaluations predict purchase intentions as follows:

H5. Consumers’ company evaluations will be positively related to purchase intentions. Specifically, higher levels of company evaluations lead to consumers’ increased purchase intentions.

3. Method

We conducted two studies to test our hypotheses because a greater range of settings provides a more robust test of the hypotheses and leads to greater generalizability of the results across types of CSR (Mohr & Webb, 2005). Therefore, in the first study, we used a real company and recent CSR initiatives intended to combat childhood obesity – the promotion of healthier kids’ meals and the elimination of toy premiums paired with less-healthy meals – which is likely to enhance external validity. In the second study, we used a fictitious company that engaged in various forms of CSR, in an online advertising setting. Additionally, a different product category was used, to test the hypotheses developed, in the online setting.

3.1. Study 1

3.1.1. Pretest

We carefully verified the CSR manipulations and some of the scales in a pretest. Forty parents participated in this pretest and were randomly assigned to either the experimental condition or the control group. A significant difference was found in the manipulation of CSR; the average commitment perception was significantly higher for the experimental group (i.e., high commitment CSR) (M = 6.98) versus the control group (low commitment CSR) (M = 5.83; p = 0.10). Attributions of responsibility were measured using a two-item 7-point scale (α = 0.88), company evaluations with five-item 9-point scale (α = 0.89), and purchase intentions with three-item 7-point scale (α = 0.96).

3.1.2. Respondents and procedures

The hypotheses developed in this research were empirically tested using an online experiment with parents across the U.S. who frequently purchase kids’ meals from fast food restaurants. One hundred thirty parents participated in this experiment, with 65 responses per each condition. Fifty-four percent of the respondents were female and 46% were male; the majority was between 36 and 45 years old. Twenty-eight percent of the participants were high school educated; 32% had some college instruction; and 40% had at least a college degree. Eleven percent stated a household income of less than $25,000, 31% between $25,000 and $50,000; while approximately 58% reported a household income higher than $50,000. Roughly 73% were Caucasian, 10% were Hispanic, 14% African American, and 3% of other ethnicity.

We used a between-subjects experimental design, in which participants were randomly assigned to the experimental or control condition. In the control group, participants read a news story about a well-known fast food restaurant’s new promotional strategies. Specifically, parents read about the firm’s plans to introduce promotions of more nutritious kids’ meals. Respondents were further informed that these new strategies aimed to help parents make nutrition-minded choices when visiting the fast food restaurant and ultimately to support the fight against childhood obesity.

Manipulation checks were conducted using the two-item, nine-point Likert-type scale (α = 0.96), adapted from Ellen et al. (2006). In this study, commitment to a cause was manipulated at two levels – high and low – where the high level indicates a true pledge to the effort toward a cause-related marketing. Manipulation checks were conducted for high commitment and low commitment, using two items which asked participants to rate the extent to which the firm 1) was committed to, and 2) cared about, a cause. In our study, the company’s commitment was manipulated by the promotional strategy employed. In conducting the manipulation checks, we asked participants to report the degree to which the firm 1) is committed to solve major societal problems, such as childhood obesity, and 2) cares about this problem. The results indicated that the high commitment group rated the firm as being committed to solve major societal problems such as childhood obesity and caring about this problem to a higher degree (M = 6.65), relative to those who were assigned to the low commitment group (M = 5.92); (F(1, 128) = 3.09, p < 0.10).

As noted earlier, the product failure was depicted as a scenario where a kids’ meal exceeded certain levels of calories, sodium, fat, and sugar. The current procedure was consistent with previous research where hypothetical product failure were used to test attributional judgments and consumer responses (Folkes, 1984). Lastly, using scenario-based experiments to test our hypotheses allows participants “to be involved and play themselves in familiar roles, yielding valuable insight into individual attitudes, beliefs and intentions” (Kim, 2017, p. 313). Following the product failure scenario, respondents completed questions that concerned attributions of responsibility to the company, company evaluations, purchase intentions, and demographics.

3.1.3. Measures

To measure attributions of responsibility, we used a scale composed of two, seven-point Likert-type statements with a satisfactory reliability estimate α = 0.80 (Hatcher, 1994; Nunnally, 1978). These items were used to assess the degree to which parents blame the fast food company or take personal responsibility in a product-failure setting. The questions were: “Who was most responsible for the poor nutritional value of the meal you chose and purchased?” “In your opinion, who should be held most accountable for the poor nutritional value of the meal you chose and purchased?”

Company evaluations (α = 0.92) were measured by five, nine-point Likert-type statements (Folkes & Kamins, 1999; Klein & Dawar, 2004) with: “very negative” and “very positive”; “very bad” and “very good”; “definitely not” and “definitely would”; “not at all trustworthy” and “very trustworthy”; “not at all concerned about customers” and “very concerned about customers” as end-points. The items were: “How positive or negative would your attitude be toward this fast food restaurant?” “Do you think the fast food restaurant that provided your meal is a good or bad company?” “Would you be likely to purchase other products made by this fast food restaurant?” “In your opinion, this fast food company is…” “In your opinion, this fast food company is...”.

Three purchase intentions items on seven-point Likert-type scale were introduced: “If you were shopping for a kids’ meal, how likely would you be to purchase a meal from this fast food restaurant?” “If I will purchase a kids’ meal from this fast food restaurant in the future.”; and “There is a strong likelihood that I will buy a meal from this fast food restaurant in the future”. These scales were anchored with “very unlikely” and “very likely”, and “strongly disagree” and “strongly agree”, respectively. The Cronbach’s alpha was 0.94 for the purchase intentions scale (Dodds, Monroe, & Grewal, 1991; Klein & Dawar, 2004; Sweeney, Soutar, & Johnson, 1999).
To test the conceptual framework and hypotheses proposed in this research, we used structural equation modeling (Iacobucci, 2012). Path analyses were conducted using the SAS System’s CALIS procedure; these analyses used the maximum likelihood method of parameter estimation. We tested two models: Model 1, where the impact of CSR on company evaluations was tested, while the path from attributions to company evaluations was set to zero and Model 2, where we assessed the impact of CSR on company evaluations and the path from attributions to company evaluations was freed (i.e., added to the model). The results offer clear support for the proposed conceptual model; the fit estimates for Model 2, Chi-square with degree of freedom ($\chi^2$/d.f.), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) are within accepted standards (Bentler, 1989; Bentler & Bonett, 1980) (Table 1). The hypothesized relationships are statistically significant and in the expected direction. The relationship between CSR and attributions ($\beta = -0.14, p < 0.05$) was negative and significant, which provides support for H1. It appears therefore that consumers’ attributions of blame, to the company, in a product-failure setting, decrease when a CSR action shows high commitments toward a major social problem (Table 2). The path from CSR to company evaluations was significant and positive ($\beta = 0.15, p < 0.05$, Model 1), supporting H2. This represents the first condition for mediation; nevertheless, the “real strength of mediation is determined after controlling for the mediating variables” (Walker et al., 2010, p. 670). Thus, when the path from attributions of responsibility to company evaluations was added in Model 2, the impact of CSR on company evaluations ($\beta = 0.12, ns$) was no longer significant, illustrating full mediation (Baron & Kenny, 1986; Iacobucci, 2012). The results further illustrate that the path between attributions and company evaluations ($\beta = -0.18, p < 0.05$) was negative and significant, supporting H3 (Table 2). As predicted in H5, the relationship between company evaluations and purchase intentions was positive and significant ($\beta = 0.50, p < 0.001$) (Table 2). The significant paths discussed above provide support for the conditions of Baron and Kenny’s (1986) and Iacobucci (2012) criteria for mediation effects. Nevertheless, we conducted additional analyses to confirm the mediation role of attributions. Thus, the last step was to assess whether Model 2 provides a significant improvement in fit over Model 1. Improvement in fit was examined with a significance test for the difference between the two model chi-squares (Holmbeck, 1997). The chi-square of Model 1 was 8.82 (d.f. = 6) and chi-square for Model 2 was 5.03 (d.f. = 5); therefore, the chi-square difference between the two models 3.79 (d.f. = 1) was statistically significant at $p = 0.05$, providing further evidence that Model 2 fits the data significantly better than Model 1. All these results confirm that CSR predicted company evaluations, through attributions of responsibility, offering support for H4.

### 3.1.4. Analysis and results

#### 3.2. Study 2

**3.2.1. Respondents, procedures, and measures**

Parents with children aged 12 or younger participated in our second online experiment and there were 110 valid responses with 55 participants per each condition. The sample had 53% female and 47% male respondents and 84% were younger than 45 years old. Seventeen percent were high school educated; approximately 33% had some college instruction; 36% reported having a college degree and 14% a Master’s degree. Similar to Study 1, we used a between-subjects experimental design, where participants were randomly assigned to one of the two experimental conditions.

We used real industry self-regulatory activities in an online advertising setting, included in CFBAI. As discussed earlier, major food companies have committed to various CSR initiatives pertaining to their interactive games primarily directed at children under 12 (i.e., advergames) (Peeler, Kolish, & Enright, 2009). Some examples are the elimination of advertising with poor-nutritional products (while introducing ‘better-for-you’ foods that have limited calories, sodium, and sugar) and the promotion of healthier lifestyles (i.e., by introducing messages such as “getting online is great, but so is getting outside to play”) (Kolish & Enright, 2010). At the time when our research was conducted, companies participating in the CFBAI program had the option to choose between the two aforementioned CSR activities intended to change the food advertising landscape. In line with previous research (e.g., Quilliam, 2008), the initiative to eliminate advertising with poor-nutritional products was used to illustrate the company’s high commitments to fight childhood obesity, while the promotion of healthier lifestyles was used to show low such commitments. Consequently, respondents in the experimental condition read a news story about a cereal company’s new promotional strategies to eliminate the advertising of non-nutritious food products on their online interactive games directed to children under 12, and to incorporate food and beverage products that have fewer calories and are lower in sugar and sodium. Parents further read that the company aimed to support the public and private initiatives that promote nutrition education for children and families and ultimately to support the fight against childhood obesity. In the control condition, participants read a similar news story about a cereal company’s new promotional strategies, only this time, the company planned to incorporate healthy lifestyle messages on the online interactive games. One such example was “It is time to stop playing in the house (inside) and start playing in the backyard (outside).” Similar to participants exposed to the experimental condition, this group further read that the cereal company intended to support the public and private initiatives that promote nutrition education for children and families and ultimately to support the fight against childhood obesity.

Similar procedures and questions to those utilized in Study 1 were further used to describe a product failure and assess attributions of responsibility to the company, company evaluations, purchase intentions and demographics. In Study 2, we used a fictitious company to eliminate the possibility of contamination of our CSR manipulations by preexisting consumer associations with a real company (Klein & DAWAR, 2004), which could have happened in the previous study. Lastly, a different product category (i.e., cereals) replaced the kids’ meals from...
Study 1. Our choice was based on a content analysis presented by Lee, Choi, Quilliam, and Cole (2009), where it was suggested that cereals and soft drinks are the most frequently promoted product categories in advergaming.

Lastly, we used Study 1 scales to measure attributions of responsibility ($\alpha = 0.82$), company evaluations ($\alpha = 0.95$), and purchase intentions ($\alpha = 0.95$).

### 3.2.2. Analysis and results

As in Study 1, we used structural equation modeling to test the conceptual framework and hypotheses advanced in this research. Again, two models were estimated: in Model 1, we examined the impact of CSR on company evaluations, while fixing the attributions and company evaluations path to zero, and in Model 2, we assessed the same relationship and added the path from attributions to company evaluations. Our results for Model 2 indicated that all fit indices are satisfactory (Table 3). Baron and Kenny’s (1986) first condition for mediation was satisfied; the impact of CSR on company evaluations was significant and positive ($\beta = 0.24, p < 0.01$), providing support for H2. This relationship decreased in strength and significance when the path from attributions of responsibility to company evaluations was added to Model 2 ($\beta = 0.20, p < 0.05$), illustrating partial mediation (Baron & Kenny, 1986; Iacobucci, 2012) (Table 4).

The results further show that CSR predicted attributions ($\beta = -0.18, p < 0.05$) and attributions significantly impacted company evaluations ($\beta = -0.25, p < 0.05$); these paths were in the expected direction, which provided support for H1 and H3 (Table 4). Lastly, company evaluations predicted purchase intentions ($\beta = 0.62, p < 0.001$), supporting H5 (Table 4).

The final step, to confirm whether there is a significant mediation effect, was to assess if Model 2 provides a significant improvement in fit over Model 1. The difference between the two models chi-squares (5.94; d.f. = 1) was statistically significant at $p = 0.01$. Accordingly, the effects of CSR on consumers’ company evaluations were mediated by attributions of responsibility, offering support for H4.

### 4. Discussion and implications

#### 4.1. Theoretical implications

This research attests to the positive effects of CSR on company evaluations and subsequent purchase intentions via a key mediator of attributions of responsibility. Our findings reveal that consumers’ self-serving bias was moderated in a product-failure setting, when the food marketer was perceived as being highly committed to tackling a major social issue such as childhood obesity. It is further important to mention that these perceived CSR initiatives triggered more favorable company evaluations and subsequent purchase intentions. As shown in our studies, when consumers read about a firm’s plans to eliminate toy premiums with less healthy kids’ meals, in addition to promoting healthier food products, their attributions of blame to the company in a product-failure setting, were likely reduced. As a result, they evaluated the firm in a more favorable manner and expressed higher levels of purchase intentions, as opposed to those participants who read about a company’s plans to simply promote healthier kids’ meals. In an online advertising context, our findings suggest a similar path; a corporation that demonstrates responsible behavior by radically changing its promotional strategies, enjoys more favorable consumer cognitive, attitudinal, and behavioral responses.

This research contributes to the CSR and business literatures in a number of ways. First, despite the large number of studies that focused on the effects of CSR, the examination of the psychological mechanism, through which different levels of CSR influence attitudinal and behavioral responses, remains limited to date (Klein & Dawar, 2004; Romani et al., 2013). Also, as Walsh and Bartikowski (2013, p. 989) pointed, numerous studies “neglect relevant mediator or moderator variables in CSR – customer outcome relationships.” Hence, our study fills this gap in the literature by empirically demonstrating that attributional judgments represent a critical mechanism/mediator, which may enlighten how and why certain CSR initiatives trigger positive or negative consumer responses. Second, this research extends the study by Klein and Dawar (2004), where causal dimensions such as locus, stability, and controllability explained the effects of CSR on consumers’ attributions of blame, in a product-harm crisis, and the level of blame was consequential to brand evaluations. The key contribution of our research stems from the examination of attributions of responsibility, per se, as the mediator between CSR and company evaluations. This illustrates a new role of the CSR construct, namely, as a moderator of self-serving bias, a central cognitive response that transpires even when customers are co-producers of a product/service (e.g., a situation in which both the customer and the company's employees interact and participate in the production of a product/service; Bendapudi & Leone, 2003). Our research further advances the literature on consumers' advocacy behavioral responses to CSR (i.e., CSR-based resistance to negative product information) by focusing on different levels of CSR commitment (Sen et al., 2016). Third, additional research is needed to examine industry-specific CSR issues (Banerjee, Iyer, & Kashyap, 2003) and to explore consumers’ responses to CSR activities in the context of different companies and product categories (Palihwadana, Oghazi, & Liu, 2016). Moreover, there has been a “noticeable paucity of academic attention to how the food industry's environmental CSR practices can empirically bring competitive advantages to the industry through quantitative methods” (Kim, 2017, p. 311). Likewise, limited consideration has been given to the impact of CSR programs addressing a major social issue such as obesity, despite numerous initiatives adopted by food corporations and this problem's impact on our society. Our research thus contributes to the business literature by empirically examining the impact of varying levels of CSR, concerning a social issue in the food industry, on consumers’ company evaluations and subsequent purchase intentions, in the context of various companies and product categories.
4.2. Managerial implications

From a managerial perspective, this study confirms the well-established consumer support for CSR and the view that responses to CSR depend on how these socially responsible programs are manifested (Green & Peloza, 2011). Our findings are further heartening to food marketers engaged in self-regulatory programs in that they show how different levels of CSR (some of them already in practice/use) can "come to the rescue during companies' product-harm crises" (Lin, Chen, Chiu, & Lee, 2011, p. 456). Considering increased litigation against food marketers and ongoing negative publicity, understanding how consumers ascribe responsibility for a product failure, in light of the level of perceived corporate commitment to address a major social issue such as obesity, and the way that these judgments affect company performance is particularly important.

Our findings ultimately suggest that eliminating the promotion of poor nutritional products, in both traditional and online settings, is likely rewarded by consumers, with relevant outcomes including positive company evaluations and subsequent higher purchase intentions. Consumers' reactions to corporate self-regulations included in the CFBAI program remain unknown due to a lack of research in this domain; therefore, our study provides valuable insights with regard to the critical impact that a CSR program, such as the withdrawal of certain online food advertising to children, may have on consumers' attitudes and behaviors toward food companies. This strategy might not be consistent with the well-established marketing practices that have been considered vital for economic growth. However, one of the most debated and criticized promotional strategies, used by food marketers, is the preponderance of advertisements – which target children – that promote foods that are high in sugar, fat, sodium, and calories. As a result, it is essential that companies show higher levels of social responsibility and act accordingly before government regulations transpire (Jolly & Mowen, 1985). From a managerial perspective, food marketers need to understand that consumers will reward such responsible actions – via positive brand evaluations and purchase intentions, and eventually will recognize a company's good and serious intentions to contribute to consumers' welfare and society's wellbeing – if the food marketer intervenes prior to government actions (Stiomkos & Kurzbard, 1994). Companies need to go beyond a mere socially responsible behavior; their CSR actions must be "credible" to be able to yield rewards (Alhouti, Johnson, & Holloway, 2016, p. 1242).

Lastly, extending the CFBAI self-regulation programs to sales promotion programs (e.g., toy premiums) could be beneficial not only to young consumers, but by developing more healthful food behaviors, but also to food marketers due to consumer support during crises and more favorable attitudes and behaviors toward a company. Our research confirms that proactive CSR or socially responsible practices, which go beyond the government/self-regulations, could be economically beneficial to food companies and ultimately give them a competitive advantage (Kim, 2017).

4.3. Limitations

This research examines the mediating role of attributions in a product failure setting and the effects of CSR activities on consumers' evaluations of the company and their subsequent purchase intentions. While the results have interesting implications, some components of our research have limitations that need to be considered. The first pertains to our participants. The sample was specified to be a national sample of respondents who frequented fast food restaurants. We obtained a sample which skewed high on education (40% had at least a college degree; 32% is the national figure) and income (approximately 58% reported a household income higher than $50,000; $47,589 is the U.S. median). Additionally, Hispanics comprised only 10% of the sample and African Americans 14%. It is unclear how the sample may have affected our findings. Demographically, fast-food consumers are more likely to be male, younger, Black, and Hispanic (Zagorsky & Smith, 2017). Consequently, from the ethnicity perspective, our sample is not representative of the population regularly visiting fast food restaurants. However, evidence has suggested that education does not correspond with fast food consumption (Binkley, 2006), nor does lower household income (Zagorsky & Smith, 2017). In fact, Zagorsky and Smith (2017) claim that poor people are less likely to eat fast food – and do so less frequently – than those in the middle and wealthy classes. While our sample was comprised of frequent consumers of fast food restaurants, some of its demographic characteristics might limit the generalization of our results to the population of interest.

Another area for further exploration concerns consumers' a priori expectations of the healthfulness of their meal. A relevant boundary condition on the general effects of CSR on attributions of responsibility and company evaluations may be consumer disconfirmation (i.e., product's performance relative to consumers' initial expectations; Darke, Ashworth, & Main, 2010). Our results suggest that companies showing high levels of commitments to a cause may enjoy lower levels of consumer blame for a product failure. Nevertheless, these results might be different depending on the extent to which parents may or may not anticipate this negative product outcome. For example, lower levels of consumer blame might hold when disconfirmation is low. In support of this view, research has shown that consumers are less likely to blame the company for an expected negative outcome (Griffin et al., 1996).

Lastly, future research that employs real-world decision-making scenarios and examines consumers' actual purchase behaviors would enhance the external validity of our findings and meet the calls of researchers to address this gap (Sen et al., 2016). Also, while product failure is conceptually evident, the construct lacks empirical substantiation. Such verification would strengthen confidence in our results.

4.4. Future research

Attributions of blame play a major role in establishing the negative consequences felt by companies through their consumers' affective, cognitive, and behavioral responses. When consumers encounter product failures, they tend to blame the company. The presence of a higher level of CSR however is likely to mitigate these responsibility judgments, as our findings suggest. Furthermore, it is essential to identify the circumstances under which these effects might/might not hold. For this reason, it would be desirable to examine the boundary conditions (i.e., consumer brand relationship, anticipated negative consequences, demographics, frequency of patronizing food outlets) on the general effects of CSR on attributions and company evaluations. Such research would provide relevant insights with regard to those situations when CSR may/may not produce the intended effects. Lastly, one way to extend our theoretical framework is to assess a model with both mediation and moderation. As an example, the mediation proposed and tested in our study could be interactional; CSR and customer brand relationship (CBR) interaction may predict attributions of responsibility, and these attributions and CBR could, in turn, predict company evaluations. Consequently, the mediating role of attributions confirmed in our research could be extended to explicitly explore CBR as a boundary condition on the effects of perceived CSR on attributions and company evaluations.

Declarations of interest

None.

References


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