THREE ESSAYS ON THE POSITIVE AND NEGATIVE CONSEQUENCES OF CORPORATE SOCIAL RESPONSIBILITY AND IRRESPONSIBILITY

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LIST OF ABBREVIATIONS

AAR	Average abnormal returns
ANOVA	Analysis of variance
AR	Abnormal returns
BI	BrandIndex
CAAR	Cumulative average abnormal returns
CAR	Cumulative abnormal returns
CSI	Corporate social irresponsibility
CSR	Corporate social responsibility
d.f.	Degrees of freedom
DV	Dependent variable
FR	France
GER	Germany
IV	Instrumental-variable
LL	Log likelihood
MX	Mexico
N	Sample size
N.S.	Not significant
N/A	Not available
N/E	No expectations
OLS	Ordinary least squares
SD	Standard deviation
SE	Standard error
UK	United Kingdom
US	United States of America
WOM	Word-of-mouth
WVS	World value survey
2SLS	Two-stage least square

SYNOPSIS

1 Short Overview

The objective of this cumulative dissertation is to derive new insights into the positive and negative consequences of Corporate Social Responsibility (CSR) and Corporate Social Irresponsibility (CSI). Table 1 gives an overview about the dissertation projects including titles, authors, and publication statuses.

As public media coverage is a crucial driver of the consequences of CSI (e.g., Liu and Shankar 2015), the *first essay* of this dissertation investigates how offline and online newspapers select specific CSI events among others. Researchers have so far not investigated media selection biases of CSI. The *second essay* analyzes country-specific differences of the impact of CSI events on consumer perception metrics and stock return. Even though the literature shows a negative effect on consumer perceptions (e.g., Ahluwalia, Burnkrant, and Unnava 2000), authors have mostly neglected to analyze cross-cultural differences. Furthermore, the second essay identifies how consumer responses to CSI influence the stock return of a company. The *third essay* analyzes how CSR activities impact consumer perception metrics and stock return. The focus here is the critical role of public media coverage, diverse effects of different CSR types, and the relationship between consumer responses and stock return.

Table 1: Overview of Dissertation Projects

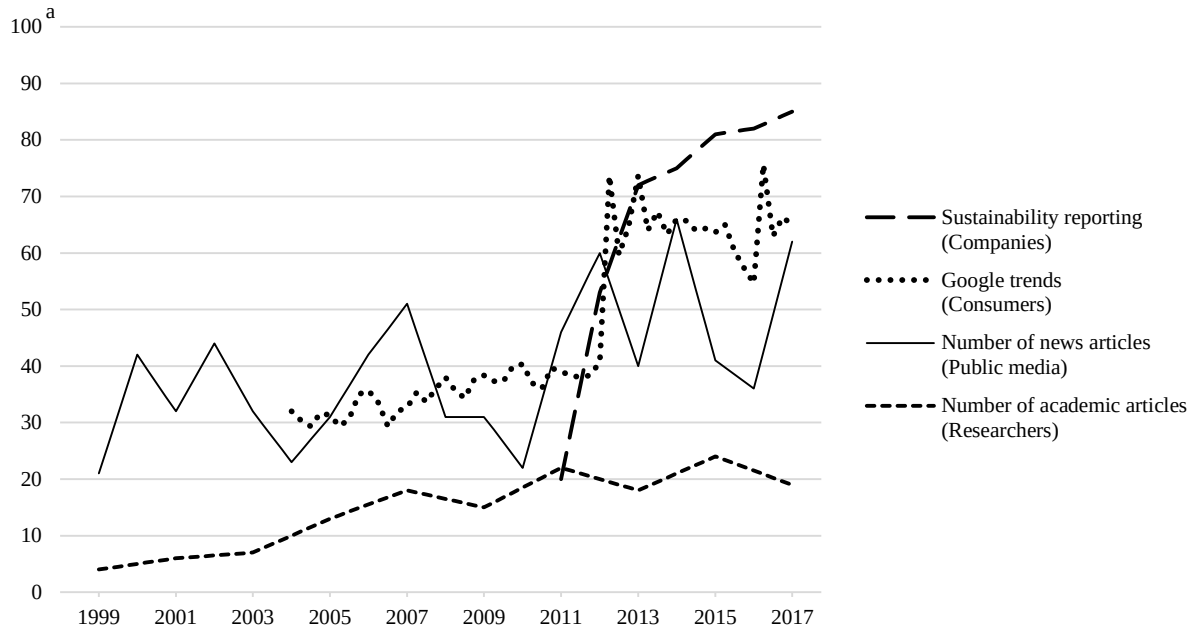
Study	Title	Authors	Status
I	When Do Media Report Negative News About a Brand? A Study of Corporate Social Irresponsibility Events Across Five Countries	Samuel Stäbler and Marc Fischer	Under review in: *Marketing Science*
II	The Impact of Corporate Social Irresponsibility Events on Consumer and Shareholder Perception: A Comparison of Five Countries	Samuel Stäbler and Marc Fischer	Under review in: *Strategic Management Journal*
III	The Impact of Favorable Media Coverage of Corporate Social Responsibility Activities on Consumer Perception Metrics and Stock Returns	Samuel Stäbler	Prepared to re-submit to: *Journal of the Academy of Marketing Science*

2 Introduction

2.1 Relevance

CSR—company actions that maximize the positive impact and minimize the negative impact on society and thereby go beyond what is required by law (Pride and Ferrell 1995, McWilliams and Siegel 2001)—has received increasing attention over the last years, both from practitioners and researchers (Flammer 2013). CSR is thereby not limited to "social" responsibility (e.g., paying fair wages), but also includes environmental (e.g., improving CO2 conditions) and governance (e.g., board gender diversity) issues. Figure 1 demonstrates the increasing relevance of CSR-related topics for companies, consumers, public media, and research over time.

Figure 1: Evolution of Attention to CSR



[a] ***Scale:***
Google Trends: Standardized values between 0 (low search volume) and 100 (high search volume).
Sustainability reporting: Percentage of S&P 500 companies that reported on sustainability or CSR.
Number of news articles: Total number of news articles in the *New York Times*, *Wall Street Journal* and *USA Today*.
Number of academic articles: Total number of articles published in the premier (i.e., A-level) marketing journals (see VHB 2018).

Note: For some trend curves, data is only publicly available for a specific time frame (e.g., Google Trends data starts in 2004).

First, corporate reporting on sustainability rose dramatically from 2011, when roughly 20% of the S&P 500 companies published such reports, up to 85% in 2017 (Governance and Sustainability Institute 2018). Companies indeed spend considerable resources on CSR

activities in order to help alleviate the grievances in the world and thereby benefit from positive consumer responses and build up a company's reputation (Hildebrand et al. 2017). *Second,* Google Trends demonstrate that the demand for topics related to CSR on Google's search engine almost doubled in the last ten years. Undoubtedly, many consumers demand ethical correctness: For example, consumers increasingly invest in socially responsible funds, consume fair-traded products, or buy environment-friendly products (Bhattacharya and Sen 2004). *Third,* companies' social performance has also come under increasing surveillance by public media. A search was conducted for the number of unique newspaper articles in the *New York Times*, *Wall Street Journal,* and *USA Today* that referred to the term CSR. While the number of articles was 21 in 1999, it rose to 62 in 2017. *Fourth,* the number of academic articles in premier marketing journals[1] that contain the keyword CSR almost doubled in the last 20 years: 98 articles were published in the last ten years (2008-2017), whereas ten years before (1999-2007) 51 articles were published.

An additional statistical analysis underlines the raising demand from companies and society for topics relating to CSR over time: A calendar time variable (i.e., yearly quarters) is statistically significant for all trend curves ($p < .01$)[2]. Furthermore, the high correlations of these trend curves (e.g., up to r = .78, $p < .01$) indicate strong independencies of companies, consumers, public media, and research in the demands for CSR.

The high importance of CSR for these interest groups also brings along that CSI—company actions that go against moral norms including environmental, governance, or social violations (e.g., Backhaus and Fischer 2016; Lange and Washburn 2012)—receives higher attention than ever before. In fact, events of CSI are published in the newspapers all over the world. Examples include the oil spill of BP in the Gulf of Mexico (*NYT* 2010), child labor issues at Asos factories in Turkey (*BBC* 2016), as well as the pollution scandal of

[1] This analysis refers to the marketing journals that are ranked as an A-level journal according to VHB (2018).
[2] Regressing each index (e.g., Google Trends) on a time variable (i.e., yearly quarters) shows significant effects of the time variable (i.e., t-value at least t = 5.37).

Volkswagen (*CNN* 2015). Therefore, investors seem to no longer tolerate unethical corporate behavior. For example, as a result of the pollution scandal, the Volkswagen share price dropped dramatically by 22% over night (Siano et al. 2017). Furthermore, consumers boycott unethical corporate behavior. A prominent example that resulted in a consumer boycott is the online firestorm against Nestlé in 2010 (Lamb, Hair, and McDaniel 2013). Environmentalists accused Nestlé for its massive use of palm oil destroying rainforests and thus the habitat of the orangutans. These negative online firestorms also induced classical news media to report on this case (e.g., *CNN* 2010).

How companies can protect themselves from negative media coverage, consumer responses, and investor reactions to CSI is a central research topic of this dissertation. Furthermore, this dissertation elaborates how companies can use CSR as an appropriate tool to increase the potential benefits. Each of the dissertation's essays identifies and closes a research gap that is highly relevant for companies, consumers and the society as a whole. The next section will briefly highlight the identified research gaps. Each essay of this dissertation, however, provides a detailed literature review in the essays themselves.

2.2 Literature Gaps

In line with the increasing practical relevance of CSR for society, there is a growing academic interest in the consequences of CSR and CSI. Whereas most empirical studies focus on the positive consequences of CSR (e.g., Hawn, Chatterji, and Mitchell 2018; Hildebrand et al. 2017; McWilliams and Siegel 2000), the negative effects of CSI have been less studied (e.g., Groening and Kanuri 2013). Despite the large number of articles available in this field, this dissertation identifies several research gaps:

First, even though media coverage has been identified as a central driver that shapes the depth and length of the consequences of CSI (e.g., Backhaus and Fischer 2016; Kölbel, Busch, and Jancso 2017), no study has investigated how CSI events actually make it into the

news. Even though there is an important stream of theoretical research in marketing and economics that studies media biases in a game-theoretic environment (e.g., Gal-Or, Geylani, and Yildirim 2012; Yildirim, Gal-Or, and Geylani 2013; Xiang and Sarvary 2007; Zhu and Dukes 2015), empirical insights into the existence of these selection biases of CSI do not exist. By investigating how newspapers select CSI events, this dissertation extends the marketing literature on brand / firm crises in a new direction.

Second, the literature suggests a negative effect of CSI on consumer perception measures (e.g., Ahluwalia, Burnkrant, and Unnava 2000; Pullig, Netemeyer, and Biswas 2006; Roehm and Tybout 2006; Dutta and Pullig 2011). However, cross-cultural differences have been ignored so far (Cleeren, Dekimpe, and van Heerde 2017). Given the international scope of corporate activities, this is surprising. By identifying how CSI events are perceived differently across countries, this dissertation extends the current literature on CSI to an international context.

Third, even though the current literature indeed shows that CSR activities have a positive impact on consumer perceptions measures (e.g., Brown and Dacin 1997; Hildebrand et al. 2017; Sen and Bhattacharya 2001), none of these studies focused on how CSR activities and which CSR types should be published in public media to derive a positive effect. This omission is critical as public media reporting has an extreme power on what consumers think about a company and its brands (Ahluwalia, Burnkrant, and Unnava 2000). By combining the impact of observed CSR activities in public media and daily-observed consumer perception metrics, this dissertation extends prior research.

Fourth, even though many studies investigated the impact of CSI events on stock returns (e.g., Flammer 2013; Groening and Kanuri 2013), the findings have been contradicting. Similarly, the effect of CSR activities on stock returns is ambiguous (e.g., Wright et al. 1995; Groening and Kanuri 2013). Why these conflicting differences occur across these studies is a

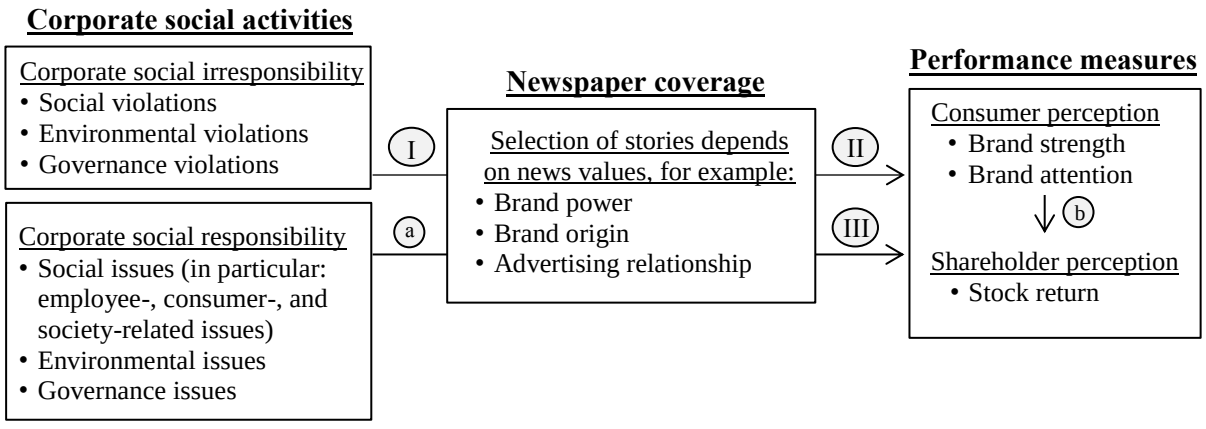
challenging question. One reason may lie in the fact that barely any study investigates how the consumer response to corporate social activities may determine the effect on stock return. This neglect is a substantial deficit, as the efficient market hypothesis (Fama et al. 1969) suggests that investors make decisions based on expected future cash flows which are influenced by consumer responses. Thus, this dissertation gives insights into how consumer responses determine stock return.

This dissertation's essays acknowledge and discuss the broad interdisciplinary literature in the field of CSR and CSI. The research gaps described above only give an initial impression of how this dissertation extends the current literature on CSR and CSI.

2.3 Research Focuses and Contributions

The main research focus of this dissertation is to investigate the consequences of CSR and CSI. Figure 2 depicts the structural position of the research projects within the dissertation's conceptual model.

Figure 2: Framework on the Potential Consequences of Corporate Social Activities



I Focus of paper I: Analysis of how CSI events are selected by public media.

II Focus of paper II: Analysis of how CSI events impact consumer perception metrics and stock return.

III Focus of paper III: Analysis of how CSR events impact consumer perception metrics and stock return.

a In an additional analysis, paper III uses a sample selection equation to control for how public media selects specific CSR news among others.

b Paper II and III also investigate whether and how the consumer response to CSR and CSI events is relevant for investors' reaction on stock markets.

As public media coverage strongly influences the consequences of corporate activities (e.g., Liu and Shankar 2015), it is essential to elaborate the criteria of how corporate events make it into the news. The analysis of how media or journalists, respectively,[3] decide about reporting on an event of CSI is thus the first central research focus of this dissertation (see *paper I*). The second central research focus is the investigation of how CSI events impact consumers and shareholders. Here, the critical focuses are cross-country differences and the relationship between consumer responses and stock market reactions (see *paper II*). The third paper examines how CSR events published in public media impact consumers and shareholders with a focus on the different types of CSR (see *paper III*).

It is beyond the scope of this dissertation to cover all stakeholder groups that may get affected by CSI and CSR events. Consequently, this dissertation focuses on consumers and investors as they represent the interface between the market and firms, which is the marketing field's core domain (Cleeren, Dekimpe, and van Heerde 2017).

More specifically, the first paper, titled "When Do Media Report Negative News About a Brand: A Study of Corporate Social Irresponsibility Events Across Five Countries" studies how journalists and editors select specific CSI events among others. This paper is co-authored by Marc Fischer. We use the theory of news values to develop a broad conceptual model of how the media bias the selection of CSI. Based on a unique dataset of 1,054 CSI events across 77 media outlets from five countries, we analyze how media-, CSI event-, and brand-specific variables drive the selection process of news media. Our results show that, among other variables, brand power, brand salience, and negative online activities increase the likelihood of a brand to be covered in the news. Furthermore, we identify how advertising partnerships of brands with specific media outlets influence media coverage. The findings have important implications for firms and society: For example, companies are highly interested in

[3] The terms media and journalists are used interchangeably. The final decision usually is a group decision of the media outlet.

anticipating the extent of media coverage in order to evaluate the potential damage and find appropriate tools to react. Further, the society has a keen interest in knowing whether and how the media bias their perception of corporate social activities.

The second paper, titled "The Impact of Corporate Social Irresponsibility Events on Consumer and Shareholder Perception: A Comparison of Five Countries", co-authored by Marc Fischer, deals with how CSI events published in public media impact consumer perception measures and stock return. Thereby, this paper essentially differs from prior research by investigating cross-country differences in the perception of CSI events and by linking the immediate consumer response to stock return. In the empirical setting, we cover all CSI events that appeared in the leading media outlets of five countries during the years 2008 to 2014. Our rich dataset consists of 536 CSI events involving 240 brands from 12 industries. We match this data with unique country-specific datasets covering consumer and shareholder perceptions from five countries. To capture the effects of CSI events, we resort to the methodology of an event study. Our results show that CSI events have a negative impact on consumer perceptions in all countries. However, the negative consequences are driven by different moderators: For example, consumers from countries with strong traditional values (e.g., Mexico) are more likely to criticize foreign companies instead of national companies. Furthermore, we show that the consumer response to a CSI event determines the impact on stock return. Overall, this study helps managers understand national particularities of how consumers respond to CSI events. In addition, it helps managers infer how changes in perception metrics impact the financial value of a company. Moreover, it validates and tests the theory of cultural values and uses the efficient market theory to explain the impact of consumer responses on stock return.

The third paper, titled "The Impact of Favorable Media Coverage of Corporate Social Responsibility Activities on Consumer Perception Metrics and Stock Returns," single-

authored, investigates how positive news on CSR impact consumers and shareholders. Using an event study, this paper analyzes the impact of 183 positive CSR activities on consumer brand perception and stock return. Results show that the positive impact of CSR on consumer brand perception is mainly driven by the factors type of CSR (e.g., social vs. environmental issue), media coverage, and previous corporate reputation. Even though results indicate an overall positive impact on stock return, consumer response does not determine the impact on stock return. Thus, investors still perceive CSR activities differently than consumers. This study gives specific guidance to managers on how to communicate their CSR activities through public media in order to maximize their benefits.

2.4 Overall Results

Overall, this dissertation identifies interesting asymmetric effects of CSR and CSI: *First*, this dissertation finds crucial differences in how CSR and CSI are covered in public media. Considering the most important brands of a country[4], CSR activities of these brands are reported with a daily occurrence rate of .02% per brand and day[5]. However, CSI events amount to an occurrence rate of .03% per brand and day. Hence, CSI events are more likely to be reported than CSR activities. This can also be shown by a χ^2-test ($p < .01$). Thus, this result indeed confirms a negativity bias of public media reporting. Even though, the occurrence rates seem rather low, note that this dissertation only investigates high-reach online and offline newspapers that intend to cover high quality information

Second, the negative impact of CSI events on brand strength is stronger than the positive impact of CSR activities. Whereas the immediate loss in brand strength as a reaction to CSI events is -.44%, the respective gain of CSR activities is .21%. The difference of the effect

[4] This dissertation resorts to a list of leading brands by the market research company YouGov (see paper I).
[5] In principle, a CSR or CSI event can occur in the press media each day. Dividing the number of identified CSR / CSI events by the number of brand–day combinations (i.e., 298 identified CSR activities divided by 1.8 million potential occurrences / 1,054 identified CSI events divided by 3.6 million potential occurrences), yields the daily occurrence rate (for details see paper I and III).

strength (= .23%) is also statistically different according to a t-test[6] ($p < .05$). A stronger negative effect of CSI than a positive effect of CSR is also in line with prospect theory. Prospect theory suggests that losses have a greater negative impact than gains have a positive impact (Kahneman and Tversky 1979).

Third, the negative impact on stock return is also stronger with abnormal stock returns of -1.24% compared to the positive impact of CSR with abnormal stock returns of .79%[7]. Furthermore, whereas consumer responses are the essential driver of stock market reactions to CSI, interestingly, consumer responses to CSR do not indicate an effect on stock return. Thus, investors perceive CSR differently than consumers.

The overall results confirm that media, consumers, and investors are more likely to criticize companies for unethical corporate behavior than they appreciate CSR activities. Thus, the essential recommendation for companies is to first implement processes and systems to avoid environmental, social, or governance violations and then allocate their scarce resources to pure CSR initiatives.

Section 3 summarizes each dissertation essay in detail. Each summary combines motivation, research objectives, database, methodology, main results, and implications.

[6] Comparing the *reversed* individual abnormal brand strength changes of CSI with the abnormal brand strength returns of CSR events in the event week lead to statistical significant differences ($t_{df=526} = 1.65$, one-sided t-test). Note that for this additional analysis, I refer to the consumers from Europe (i.e., France, the U.K., and Germany). In the papers, I also discuss the impact on consumers from the U.S. and Mexico. For details see paper II and III.

[7] Comparing the abnormal stock returns of CSR with CSI across event days one and two leads to statistical significant differences ($t_{df=122} = 2.01$, one-sided t-test). However, comparing the *reversed* cumulative abnormal stock returns of CSI with the abnormal stock returns of CSR events only leads to statistical differences on a 10%-level ($t_{df=122} = 1.31$, one-sided t-test). Note, that these analyses are only additional analyses to highlight the overall results. Each of the dissertation's paper gives a detailed overview about methodology and main results. Again, I refer to stock markets in Europe (i.e., France, the U.K., and Germany). In the papers, I also discuss the impact on stock markets in the U.S. and Mexico. For details see paper II and III.

3 Summary of Dissertation Projects

3.1 Paper I: When Do Media Report Negative News About a Brand: A Study of Corporate Social Irresponsibility Events Across Five Countries

Negative actions of companies take place all over the world. Especially CSI such as human rights violations, corruption, and environmental scandals are increasingly moving into the focus of the societies' attention. Prior research (e.g., Ahluwalia, Burnkrant, and Unnava 2000; Flammer 2013) indeed indicates that CSI incidents have a detrimental impact on consumer perceptions and financial measures of firms.

However, the role of media coverage is crucial for the negative consequences of a crisis event (e.g., Galtung and Ruge 1965). Especially if a crisis is widely published in the news media, it has a negative impact on firms and consumers. Backhaus and Fischer (2016) empirically show that a 100% increase in media coverage of a crisis event leads to an additional loss of 21% in brand strength. Furthermore, Liu and Shankar (2015) indicate that a 100% increase in media coverage of a crisis event even leads to an additional loss of 7.5% in sales.

Due to this extreme power of news media, it is essential to analyze how CSI events receive high media attention. Media outlets are restricted in terms of the number of articles they can publish and hence are not able to report every incident that happens in the world. Indeed, the empirical data of this study suggests that the negative publicity varies widely from one crisis event to another. For example, from 77 investigated press media outlets, 60% reported on a price fixing scandal of Apple in 2012, whereas only 5% reported on bad working conditions of Hollister in 2012. Clearly, each CSI event has its unique characteristics, but such a great variance in media coverage indicates that journalists may not choose their events randomly but select their news systematically following a subtle editorial line (e.g., covering only powerful brands) (Gambaro and Puglisi 2015).

Yet, there is no empirical evidence of how journalists and editors select certain CSI events among others. Therefore, this paper identifies the systematic factors that determine the likelihood of a CSI event being covered by public media. Understanding the underlying mechanisms is of utmost relevance to companies to forecast bad press and to find appropriate tools to act proactively. On the other side, the society is also entitled to understand how newspapers select their news as biased news coverage may lead to biased perceptions which result in a reduced consumer welfare (Rinallo and Basuroy 2009).

Based on the grounds of the theory of news values and in-depth interviews with leading newspaper editors, this study develops a broad conceptual model identifying the systematic factors that determine the likelihood of a CSI event being covered by public media. Thereby, we consider brand- (e.g., brand power), crisis event- (e.g., CSI event type), and media-specific (e.g., political orientation of media outlet) news selection variables in a cross-cultural context.

In the empirical setting, this study covers 1,054 CSI events involving 324 brands that appeared in the leading 77 media outlets of five countries during the years of 2008 to 2014. We combine this extensive set of CSI events with unique survey data provided by the market research companies YouGov and Ebiquity. Based on a latent threshold model, we measure the probability that a specific media outlet of a country reports on a CSI event. Furthermore, we simulate the effect of changes in the news selection variables in order to receive important insights into the effect strengths.

Our results show that variables such as brand power and brand salience increase the likelihood of a brand to be covered in the news. Whereas the average likelihood[8] is 16.4%, it increases to 23.7% if a brand is popular. In addition, we identify how advertising spending of brands influences media coverage. In general, more advertising leads to a higher likelihood of being reported. However, CSI events are less likely to be reported when the respective brand

[8] As average likelihood we define a situation where all variables are set to their sample averages.

has a selective partnership with the media outlet and choose to run their advertisements only in one particular media outlet instead of multiple media outlets. Then, the likelihood decreases to 6.4%. Besides, we identify a slant towards foreign brands. If a foreign brand is involved in a domestic CSI event, the likelihood of reporting increases the likelihood to 32.5%.

3.2 Paper II: The Impact of Corporate Social Irresponsibility Events on Consumer and Shareholder Perception: A Comparison of Five Countries

Events of CSI appear in the news all over the world—Volkswagen's pollution crisis is just one example of the many crises covered in public media. Such negative coverage can severely lower consumers' trust in brands and can have a detrimental impact on financial performance measures.

In line with these real-world developments, increasing research on the effects of CSI on consumer- and firm-related variables exists and reveals that CSI events have an impact on consumer-related variables such as brand strength, brand attitude, and brand considerations (e.g., Ahluwalia, Burnkrant, and Unnava 2000; Dutta and Pullig 2011; Backhaus and Fischer 2016). However, whether and how consumers from different parts of the world respond differently to such events has not been examined. This oversight is surprising, since many companies sell their products across national borders and the frequency of CSI events is increasing globally. Across countries, several indicators, such as levels of corruption and economic growth rates as well as laws and norms, suggest that CSI events may be perceived differently in different countries. This significant gap in the literature leads to the first central research topic of this paper.

In contrast to CSI's impact on consumers, its impact on stock return is not clear. While some studies find a negative impact (e.g., Davidson and Worrel 1988; Flammer 2013), other studies find no impact at all (e.g., McWilliams and Siegel 1997; Groening and Kanuri 2013). One reason for the conflicting findings may lie in the fact that studies so far have not

considered how the consumer response to a specific CSI event determines stock return. The efficient market hypothesis suggests that the market value equals the present value of expected cash flows, which is grounded in consumer responses. Investigation of whether and how consumer response affects stock return is the second central research aim of this paper.

Drawing on the theory of cultural values, we develop a cross-cultural model of the effects of CSI on consumers. The efficient market hypothesis helps us predict how consumer responses impact stock return. As an additional analysis, we investigate how the stock market reaction differs in different countries.

In the empirical setting, we collect data on incidents of CSI reported in the press media in five countries: The U.S., Mexico, the U.K., Germany, and France. The final sample includes a large set of 536 events involving 240 brands. Using the methodology of an event study, we determine the impact of CSI events on brand strength, brand attention, and stock return. Furthermore, we estimate a wide range of cross-sectional regressions to identify potential variables that moderate the CSI effect. An essential focus is the impact of consumer responses on stock return.

The study's results indicate that CSI events have a negative main impact on brand strength and a positive impact on brand attention in all analyzed countries. Nevertheless, the main effect does not differ among the countries studied. This finding highlights consumers' demand for ethical correctness in developed as well as developing (in our case, Mexico) countries. We also identify differences across the drivers of the CSI effect. For example, consumers from countries with a strong norm of patriotism are more likely to de-value foreign brands than national brands, perhaps because patriotic consumers want to protect their own domestic economy.

The results on stock return are also in line with our expectations: Consumer response to a CSI event influences the impact on stock return. However, a very surprising result is that the

main impact of CSI events is significant only for the stock market in Europe and not for North America.

These results are highly relevant for managers. *First*, we give country-specific guidance as to which CSI type, which kind of company, and which industry companies should focus on to prevent any potential damage. *Second*, we provide insight into how consumer responses determine stock market reactions. We highlight the need for companies to manage their relationships with consumers to influence the financial value of their company on stock markets. Specifically, this study helps managers to predict financial consequences by investigating consumer perception metrics.

Our analyses also contribute to crisis theory and research, as we adapt the theory of cultural values to explain how the perception of CSI varies across countries and we use the efficient market hypothesis to predict how consumer responses determine stock return. We also extend the application range of event studies by analyzing a brand-specific index.

3.3 Paper III: The Impact of Favorable Media Coverage of Corporate Social Responsibility Activities on Consumer Perception Metrics and Stock Returns

Companies invest heavily into CSR programs (Flammer 2015) with a wide range of activities that may affect the environment, consumers themselves, society as whole, or employees. The steadily increasing number of public media reports about CSR underlines the growing relevance of this topic. For example, while 21 articles in the *New York Times, Wall Street Journal,* and *USA Today* contained the term CSR in 1999, that number had swollen to 62 articles in 2017.

In line with these real-world developments, academic research on the effects of corporate social responsibility has bourgeoned (e.g., Mishra and Modi 2016; Hildebrand et al. 2017; Habel et al. 2016). Although these studies give specific answers to where, when, why, and how CSR activities should be implemented, they have largely ignored the critical role of

public media in the perception of CSR, and especially the number of reporting press media outlets. This oversight is surprising, as prior research suggests that reports in the media have a fundamental impact on how consumers think about companies and their brands. Therefore, managers need a clear understanding of how public news coverage of their social activities affects their stakeholders.

This study closes this research gap by investigating the impact of favorable media coverage on consumers and investors. These two stakeholder groups—consumers and investors—represent the interface between the market and firms and are thus the central focus of this study. Whereas a reasonable assumption is that consumers generally react positively to corporate social activities, how investors react is a challenging question. On the one hand, investors may believe that the benefits of CSR will exceed the potential costs, thus enhancing financial performance. On the other hand, investors may perceive CSR activities as a misappropriation of resources (Groening and Kanuri 2013).

Drawing on stakeholder theory (Freeman 1984) and agenda-setting theory (McCombs and Shaw 1972) to explain the effects of favorable public media coverage of CSR, I develop a broad conceptual model that comprises a wide range of important moderating variables. Potential drivers include the intensity of media coverage, various types of CSR activities, and prior brand reputation. The study also controls for various factors, such as the region of CSR activity.

In the empirical setting of this study, I combine observed CSR activities covered in public media with observed consumer- and company-specific data. Specifically, I identify all CSR events of 600 brands that appeared in leading German press media from February 2008 to March 2015. In total, I investigate 183 CSR events across 12 industries and 77 brands. To capture consumer brand perceptions, I use several metrics provided by the market research company YouGov. In addition, I use stock return data provided by Thomson Reuters and

additional financial data provided by Compustat. I apply the methodology of an event study to investigate the impact of CSR activities on both consumer-specific metrics and stock return.

The analysis reveals interesting results: Most importantly, CSR activities reported in public media have a positive impact on both consumer-specific metrics and stock return. Thus, companies should indeed behave in a socially responsible manner and announce their activities in the news. The more articles are published in public media, the greater the positive impact of CSR activities on consumer brand perception. Further, the positive impact varies with different CSR types: Proactive activities (e.g., providing free day-care for children) have a greater positive impact than reactive activities (e.g., improving working conditions after a scandal). Also, long term-activities have a greater impact than short-term activities. In addition, the geographic region of where the CSR activity takes place plays an important role: Consumers especially appreciate activities that take place in their home country or in foreign developing countries. Managers should put strong effort into communicating the region of their CSR activities, as I find only positive effects of CSR activities when the media reports where the activities take place. Surprisingly, results show that previous brand reputation drives consumer brand perception and stock returns asymmetrically. Shareholders especially appreciate CSR activities by companies that have a very good brand reputation. In contrast, consumers especially appreciate CSR activities by companies that have a weak brand reputation. Overall, this study thus has important implications for managers and makes contributions to the marketing literature.

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PAPER I:
WHEN DO MEDIA REPORT NEGATIVE NEWS ABOUT A BRAND? A STUDY OF CORPORATE SOCIAL IRRESPONSIBILITY EVENTS ACROSS FIVE COUNTRIES

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ABSTRACT

Companies are increasingly held accountable for their social responsibility and punished if they do not behave in a socially responsible manner. To what extent an event of corporate social irresponsibility (e.g., eco-harmful event) causes damage, largely depends on the coverage of this event in high-reach online and offline news media. We argue that the coverage of CSI events is strongly biased. Based on the theory of news value developed in communication and journalism, we introduce a set of variables related to the event, the involved brand, and media outlet that explain the media bias in CSI news coverage. We propose a latent threshold model of news reporting that estimates the relevance and impact of these variables.

We apply the model to a large sample of 1,054 reported CSI events that occurred in the period 2008-2014. The sample covers 77 leading media outlets in five countries: the U.S., Mexico, the U.K., Germany, and France. Estimation results support the theory and reveal a significant bias in media coverage of CSI events. Salient and powerful brands face a much higher likelihood to be covered in a negative story on unethical firm behavior. The reporting likelihood is also considerably higher if a foreign brand is involved in a domestic CSI event. Further, the reporting likelihood decreases for firms that have a selective advertising partnership with a media outlet. The findings have important implications for firms, media, and society.

Keywords: Media bias, theory of news value, corporate social irresponsibility

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1 Introduction

Companies are increasingly held accountable for their social responsibility. External stakeholders including investors do no longer tolerate unethical firm behavior but rather demand proactive social responsibility (e.g., Flammer 2015; Kang, Germann, and Grewal 2016; Kölbel, Busch, and Jancso 2017). Indeed, events of corporate misbehavior may precipitate a firm into a severe if not existential crisis. For example, Enron's accounting fraud in 2011 did not only lead to its bankruptcy but also to the dissolution of its then auditor Arthur Anderson. A Wall Street journalist played a major role in the discovery of the Enron scandal and won several media awards for his investigation. The case demonstrates the enormous power of media. By construction, unethical behavior has no consequences until it is revealed and reported in the media. In fact, extensive research on corporate crises suggests that media coverage is one if not the most important accelerator of a brand / firm crisis (e.g., Backhaus and Fischer 2016; Kölbel, Busch, and Jancso 2017; Liu and Shankar 2015). Backhaus and Fischer (2016) show that the immediate loss in brand reputation deteriorates from -13% to -21% if 12 instead of 6 German media outlets cover the crisis event. In addition, the brand needs two months longer to recover from the crisis. Kölbel, Busch, and Jancso (2017) study how media coverage of corporate social irresponsibility (CSI) increases financial risk. They find that one additional article may cost the firm up to US$ 140 million per year. Hence, media coverage is a key factor that shapes the depth and length of a crisis and its consequences for the company. From the firm's perspective, it is therefore of utmost relevance to understand and anticipate media coverage in a crisis situation.

Anecdotal evidence suggests that media coverage of a crisis event varies strongly. The recent Volkswagen emission scandal reached broad worldwide press coverage. In contrast, only few outlets reported on the accused misappropriation of funds by Banorte, a leading Bank in Mexico in 2012. In another example, both Goldman Sachs and JP Morgan were

accused of fraud in 2012 and 2010, respectively. While 9 of the 15 leading US newspapers reported on Goldman Sachs it was only 3 newspapers that covered JP Morgan. What is causing this divergent coverage of the same kind of misbehavior in the same industry? Clearly, each incident has its unique characteristics, but the examples also beg the question whether there is a systematic bias in the selection of firm-scandal related news by the media.

1.1 Research Question and Contribution

Studying the media coverage bias of CSI events is the key objective of our study. Specifically, we develop a model of how media or journalists, respectively,[9] decide about reporting on an event of corporate misbehavior or not. This model includes various drivers of news selection such as the evidence on the event, brand reputation, brand origin, and exclusivity of advertising partnership. We acknowledge that there are many sorts of negative publicity about a firm including product recalls, scandals of sponsored celebrities and incidents of social irresponsible behavior. It is beyond our scope to cover all of them. This study focuses on corporate social irresponsible behavior that relates to environmental, social, and governance issues. We focus on these issues because their relevance has been constantly rising during preceding years, but they are less studied than other events such as product recalls.

We attempt to provide several contributions. *First*, we adapt the theory of news value (Galtung and Ruge 1965), an established paradigm to explain when an event becomes news, to describe and predict the bias in covering CSI events in the media. For this purpose, we introduce news selection criteria and develop hypotheses on how these criteria influence editors' decision to cover a CSI event or not. *Second*, we propose a latent threshold model to test the hypotheses. *Third*, we apply the model to a large multi-country dataset and quantify the impact of news selection criteria on the probability of reporting a CSI event. Specifically,

[9] We use media and journalists interchangeably. The final decision usually is a group decision of the media outlet.

we collect data on incidents of corporate social irresponsibility (CSI events) and their coverage in the leading online and offline media in five countries: The U.S., Mexico, the U.K., Germany, and France. Our search covers the years 2008 to 2014. The final sample includes a large set of 1,054 CSI events involving 324 brands across diverse industries. Model estimation offers a way to assess the magnitude of the bias in media coverage that is associated with each of the proposed new selection variables.

In our empirical application, we consider only events that are reported in the leading media of the five countries. Hence, we do not claim to make a general statement about news coverage but about the extent to what CSI events are covered across high-reach media and countries. Additionally, we note that we study the coverage of a single CSI event within a two-week period after its first occurrence. We do not study the evolution and diffusion of a larger issue of firm misbehavior in the media, which often includes a string of several uncovered single CSI events and various background stories. We do account, however, for the history of reported CSI events on a brand and therefore control for different levels of issue coverage over time and firms.

Our findings are important for both senior executives of the affected company and various stakeholder groups, in particular society. Given the critical role of media, the society has a keen interest in knowing whether there is an equal chance that media cover a CSI event or not. Senior executives would like to anticipate the extent of media coverage to evaluate the potential damage to their brand and firm, respectively, and to prepare appropriate actions for handling the crisis.

1.2 Related Literature

Our study extends the marketing literature on brand / firm crises in a new direction. Prior research has studied the effects of negative corporate news on various performance metrics and conditions, e.g., sales (Cleeren, van Heerde, and Dekimpe 2013), advertising

effectiveness (e.g., Liu and Shankar 2015), and shareholder value (e.g., Flammer 2013). In addition, researchers have analyzed consequences for consumer mind-set variables such as attitude towards the brand (e.g., Ahluwalia, Burnkrant, and Unnava 2000), brand equity (e.g., Dawar and Pillutla 2000), brand attention and brand strength (e.g., Backhaus and Fischer 2016), and online word of mouth (e.g., Borah and Tellis 2016). Many of these studies point to the prominent role of media coverage for a crisis.

There is an important stream of theoretical research in marketing and economics that studies media biases in a game-theoretic environment (e.g., Gal-Or, Geylani, and Yildirim 2012; Yildirim, Gal-Or, and Geylani 2013; Xiang and Sarvary 2007; Zhu and Dukes 2015). Media bias here refers to whether and how media outlets report on news suggesting two forms of media bias, *selection* and *content* bias. The theoretical models help better understand under which conditions (consumer preferences, advertising relationships, competitive variation, etc.) the bias is larger or smaller and what the consequences on market structure, prices, etc. are. Their key limitation is the missing empirical insight into the existence and size of these biases.

A rich tradition of empirical research on media bias exists in other fields, such as politics, journalism, and communications sciences (e.g., Greenstein and Zhu 2012; Eisinger, Veenstra, and Koehn 2007; Larcinese, Puglisi, and Snyder 2011). The context of these studies, however, is very different from ours since their focus is not on corporate misbehavior.

The interdependency of media and their advertising partners and how that results into various forms of media bias has initiated a research stream in economics (e.g., Chiang and Knight 2011; Reuter and Zitzewitz 2006). Overall, these studies suggest that advertising helps firms favorably influencing coverage and content in the media. Empirical research on media bias, however, has not been the focus of the marketing literature so far. An exception is the study by Rinallo and Basuroy (2009) on advertising bias of content. They demonstrate that

articles tend to position products of their advertising partners more favorably. To the best of our knowledge, no study in marketing has been published that studies a potential selection bias of media with respect to CSI news.

The paper is structured as follows: The following section introduces our model of news selection. We then develop hypotheses about news selection drivers. The next section presents our data and the empirical model. We then present estimation results and conclude with a discussion and limitations of our research.

2 A Model of Negative Corporate News Selection

In this section, we develop a model that describes the process and drivers of selecting negative corporate news due to an event of unethical behavior.

2.1 Theory of News Value

In a seminal article, Galtung and Ruge (1965) suggested a theory of news value to answer the question: "How does an 'event' become 'news'? This theory has gained wide acceptance to explain the selection process of news across various fields (international politics, entertainment, sports, etc.) but not yet corporate news. Though extensions and refinements of the theory have been suggested (e.g., van Ginneken 1997; Harcup and O'Neill 2001) it has not lost its relevance and still applies to today's digital media world (Harcup and O'Neill 2017). Galtung and Ruge start with the basic premise that journalists follow ground rules to evaluate an event and put forward a taxonomy of 12 news factors describing the 'newsworthiness' of the event. The theory contends that the more factors an event satisfies the more likely it is to be reported on. Moreover, news factors may compensate each other and altogether have to pass a certain threshold to qualify as news. Proponents of the theory assert that news factors are universal, i.e. they do not vary notably across culture (e.g., van Ginneken 1997).

We adopt the theory of news value to explain how media assess the newsworthiness of a corporate event of unethical behavior. The *news factors* proposed by the theory describe the reasons for newsworthiness at an *abstract* level. As a theoretical contribution, we derive explicit *news selection variables* from the news factors that apply to the *specific* context of unethical firm behavior. These news selection variables are observable and thus suitable for empirical validation.

In the following section, we briefly describe this process before we set up our basic model and develop hypotheses on the news selection variables.

2.2 Deriving News Selection Criteria

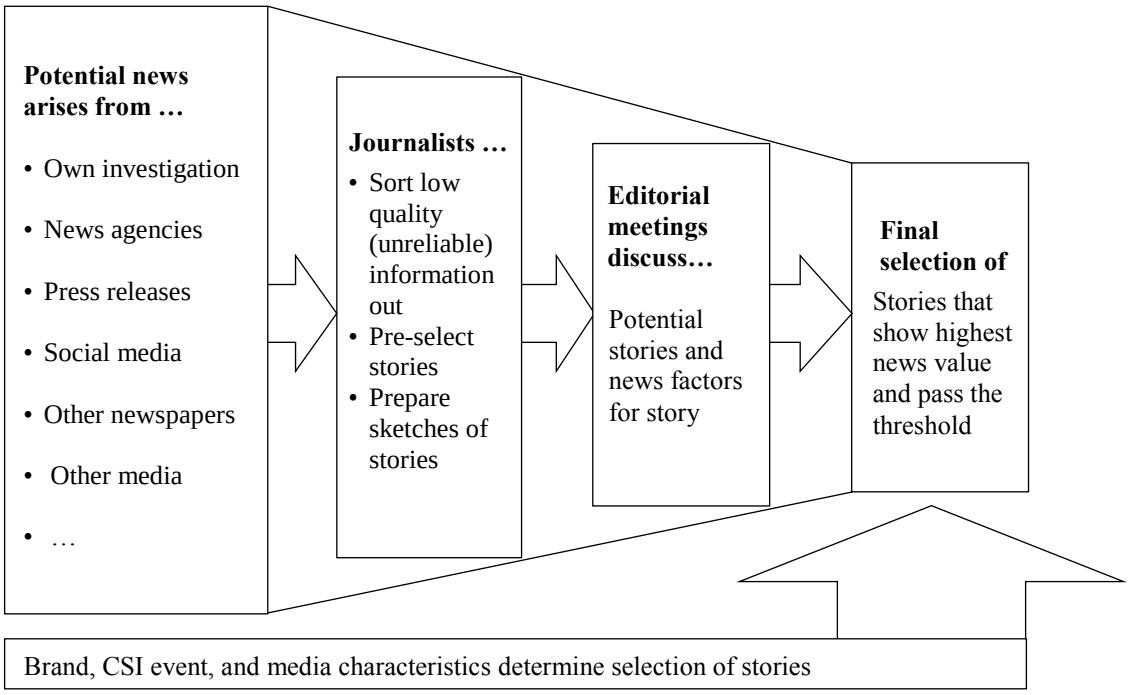
To derive selection criteria, we proceeded in two steps. We *first* scanned the relevant academic media literature to generate potential news selection variables. *Second*, we conducted in-depth interviews with editors of newspapers. The purpose of these interviews was to probe the underlying mechanisms and selection criteria on how newspapers outlets prioritize news. In addition, they helped us better understand the process a story goes through before it is published.

Generation of criteria. We screened the relevant media literature in politics (e.g., Galtung and Ruge 1965), journalism (e.g., Harcup and O'Neill 2001), sociology (e.g., Oliver and Myers 1999), economics (e.g., Eisensee and Strömberg 2007) and management (e.g., Friebel and Heinz 2014) and derived a catalog of more than 40 potential news selection criteria. We then discussed these criteria with two professional experts in journalism to assess their appropriateness and eliminate irrelevant criteria. In the next step, we evaluated the criteria according to their measurability. By measurability we mean that the criterion must be specific enough to be operationalized and observable. Finally, we asked the interviewed newspaper editors to evaluate our preliminary list of 21 selection criteria for practical relevance and to suggest any unmentioned criteria.

In-depth interviews with newspaper editors. We approached three business editors and one vice editor-in-chief of three newspapers in Germany, *taz*, *Rheinische Post*, and *Bild*, for conducting in-depth interviews on how they select and report on negative corporate news. The interviews lasted 60 to 90 minutes. They were recorded and transcribed verbatim. We chose these three newspapers because they reflect the German media landscape well in terms of size (small and large circulation), geographic coverage (regional and national), and political orientation (left, neutral, and right).

Despite their differences, the interviews revealed a very consistent organizational process of news selection (see Figure 1). This process starts with the identification of incidents that arise from different sources: Own research, news agencies, press releases, social media, and other news media. Once journalists are aware of these events they preselect and prepare sketches of potential stories, which are discussed in one or two consecutive editorial meetings. The decision whether to report on an event or not is usually solved through discussion. Across the newspapers, we only find slight differences in the number of organized editorial meetings, the number of involved participants, and the power of the editor-in-chief.

Figure 1: Editorial Process of News Generation



In all three outlets, each event is evaluated in terms of its newsworthiness. To be reported, the news must pass a certain threshold that is not fixed but changes from day to day. This threshold reflects an implicit understanding shared among journalists and editors that it is worth reporting on the corporate event relative to other business news on that day. The news factors determine to what extent this threshold is crossed or not.

The interviews clearly suggest that there is a general paradigm that guides editors in the evaluation of the newsworthiness of a CSI event. They look for events with a high potential to evolve into a big scandal (i.e., severe damage) and for firms that have much to lose. The following quote of an editor underlines this: "The level a company falls from is crucial."

2.3 Model

According to the theory of news value, news factors of an event add up in a compensatory, linear-additive manner and collectively need to pass a threshold to become news. Consider the event *i* of unethical firm behavior that comes to the attention of media outlet *j*. The media outlet assesses the newsworthiness of the event along several observable news selection variables that reflect the higher-level news factors. We summarize the news selection variables associated with the CSI event and brand in vector $\mathbf{x}_{i,a}$. The variables may have different importance for assessing the newsworthiness that is reflected in parameter vector $\boldsymbol{\beta}_a$. The media outlet decides to report on the event only if it passes a certain threshold represented by Θ_{ij}. This threshold includes an overall constant α, a calendar time variable (e.g., weeks) t_i with associated parameter γ, and observable variables that are summarized in vector $\mathbf{x}_{ij,b}$ and weighted by parameter vector $\boldsymbol{\beta}_b$. These variables could be characteristics of the media outlet such as a daily frequency of publication, which might lower the threshold for reporting CSI events. Other variables are linked with the specific event, such as the place of the event.

Let y_{ij}^* denote an unobserved variable that the newsworthiness of event *i* as perceived by outlet *j* exceeds the threshold for being reported:

$$y_{ij}^* = \boldsymbol{\beta}_a' \mathbf{x}_{i,a} + \varepsilon_{ij} - \Theta_{ij}, \tag{1}$$

$$\text{with } \Theta_{ij} = \alpha + \gamma t_i + \boldsymbol{\beta}_b' \mathbf{x}_{ij,b}.$$

where ε denotes an error term that captures the joint influence of unobserved variables on the evaluation. We do not observe the difference between the perceived newsworthiness and the threshold but only whether the threshold was passed and the news reported or not. Without loss of generality, our observation is

$$y_{ij} = 1 \text{ if } y_{ij}^* > 0, \tag{2}$$

$$y_{ij} = 0 \text{ if } y_{ij}^* \leq 0. \tag{3}$$

We can then write for the probability that *y* equals one

$$\text{Prob}\left(y_{ij}^* > 0 \middle| \mathbf{x}_{i,a}, \mathbf{x}_{ij,b}, t_i\right) = \text{Prob}\left(\boldsymbol{\beta}_a' \mathbf{x}_{i,a} + \varepsilon_{ij} > \Theta_{ij} \middle| \mathbf{x}_{i,a}, \mathbf{x}_{ij,b}, t_i\right). \tag{4}$$

Assuming that the distribution of ε is symmetric and logistic gives rise to the binary logit model (Train 2009).

3 News Selection Variables for Corporate Social Irresponsibility Events

In the following, we introduce our news selection variables that we use for conceptualizing the news factors. These variables are observables and thus accessible for later empirical model testing. We caution, however, that we do not attempt to develop a full scale for measuring news factors. This is out of scope and left for future work.

Table 1 summarizes the specific news selection variables we use to operationalize the higher-level news factors. The selection variables are shown in the first column and organized in groups that are related to the brand, the CSI event, and the media outlet. We mention the associated news factor in the next column and provide a short description of their original meaning. Details on measurement of the selection variables are provided later.

Table 1: News Selection Variables for CSI Events and Their Correspondence to Original News Factors

News selection variable	News factor	Description of news factor
Brand-related variables		
• Brand salience • Brand power • Brand presence	Power elite	Stories concerning powerful individuals, organizations or institutions.
– Advertising pressure – Online interest in brand	Celebrity	Stories concerning people who are already famous.
• Negative word of mouth	Consonance	The news selector may predict (or, indeed, want) something to happen, thus forming a mental "pre-image" of an event.
• Origin of brand: domestic	Relevance	Stories about issues, groups and nations perceived to be relevant to the audience. The culturally similar is likely to be selected because it fits into the news selector's frame of reference.
• Brand CSI history	Continuity	Once a topic / issue has become headline news it remains in the media spotlight for some time – even if its amplitude has been greatly reduced – because it has become familiar and easier to interpret.
CSI event-related variables		
• Domestic CSI event • Foreign brand involved in domestic CSI event	Relevance	See above.
• Evidence-based CSI event	Unambiguity	The less ambiguity, the more likely the event is to become news. The more clearly an event can be understood, and interpreted without multiple meanings, the greater the chance of it being selected.
• Other brand news	Balance	An event may be included as news less because of its intrinsic news value than because it fits into the overall composition or balance of a newspaper. If there are already many news items on a subject the threshold value for a new item will be increased.
Media-outlet-related variables		
• Frequency of publication	Frequency	An event that unfolds at the same or similar frequency as the news medium (such as murder) is more likely to be selected as news than is a social trend that takes place over a long period of time.
• Political orientation • Advertising relationship with media outlet • Selective advertising partnership with media outlet	Newspaper's own agenda[1]	Stories that set or fit the news organization's own agenda.

Notes: News factors based on Galtung and Ruge (1965) and Harcup and O'Neill (2001).
[1] News factor added by Harcup and O'Neill (2001).

3.1 Brand-related News Selection Variables

Brand salience, power, and presence. Two major drivers of selecting news are the reference to power elite and celebrity (Harcup and O'Neill 2001). Power elite refers to powerful individuals, organizations, or institutions. Celebrity refers to people who are famous. The bias pro stories about powerful and famous organizations and people has several origins. Famous and powerful organizations / people are already well known and more familiar to a larger group of the readership. This makes it easier for them to process and integrate new information from reading the story (Johnson and Russo 1984). Well-known and powerful institutions / people also serve as objects of identification. Therefore, they can be used to tell a story about everybody (Galtung and Ruge 1965). Finally, it has been emphasized that actions by powerful institutions / people are perceived to be more consequential (e.g., Harcup and O'Neill 2001).

These characteristics of organizations and people are directly transferrable to brands, which also differ in terms of strength and their degree of popularity. Brands represent the organization behind them. It has also been argued that consumers perceive them similar to a person that can be measured with a brand personality scale (Aaker 1997). In addition, the identification of customers with their preferred brands is a key source for the brand's power (Sirgy 1982). Hence, the news values power elite and celebrity directly map onto brands. In words of one interviewed editor, a potential story gets more interesting the larger the brand, the better known the brand and the more popular the brand is.

We differentiate between three dimensions of a brand's role and perception in the population: *Brand salience*, *brand power*, and *brand presence*. The first two constructs result from long-term processes of information processing, learning, and evaluation. Brand salience reflects the prominence or level of activation of a brand in memory (Alba and Chattopadhyay 1986). It represents the depth of the knowledge structures a person has built up for a brand

over time. Brand power builds on these knowledge structures but adds a directional meaning by integrating cognition, emotions, and behavioral intentions. It measures how strong the brand is in the minds and hearts of customers.

Brand presence refers to the fact that a brand may be more or less present at a specific point in time. This presence fluctuates over time as it is driven by short-term influences such as advertising pressure, rumors, viral activities, etc. It changes the general attention level of brands but not necessarily in a sustainable manner. We measure brand presence by recent advertising expenditures for the brand and the relative online interest in the brand (GoogleTrend).

Following the line of arguments for the news values power elite and celebrity, we hypothesize the following relationships:

H1a: The higher the salience level for a brand, the more likely a media outlet is to report on a related CSI event.
H1b: The higher the power level for a brand, the more likely a media outlet is to report on a related CSI event.
H1c: The higher the level of recent advertising pressure for a brand, the more likely a media outlet is to report on a related CSI event.
H1d: The higher the level of online interest for a brand, the more likely a media outlet is to report on a related CSI event.

Negative word-of-mouth. Negative word-of-mouth (WOM) on a brand leads to more news articles on that brand. Hewett et al. (2016) have shown this for banks in a complex multimedia system of communication. We measure negative WOM by asking people whether they have heard something negative about a brand. Consistent with Galtung and Ruge's news factor consonance, negative WOM creates a situation where people expect or even 'want' that something will happen that is consonant with this expectation. If a negative event such as a CSI issue indeed happens, editors know that it is easier received and processed by readers of their outlet. Hence, the reporting likelihood increases. We formulate the following hypothesis

H2: The higher the level of negative WOM for a brand, the more likely a media outlet is to report on a related CSI event.

Domestic brand. Our interviewed editors emphasized that stories on a domestic brand are more likely to appear, simply because it is more relevant to the average citizen. Relevance indeed has been suggested as an important news factor and linked with cultural proximity (Harcup and O'Neill 2001). The theory says that readers will pay more attention to culturally similar events and take less notice of culturally distant events. Culturally similar events better fit into the frame of reference. Therefore, a CSI event that involves a domestic brand makes it more meaningful to readers and raises more interest by media outlets in the respective country. We hypothesize

H3: If a CSI event involves a domestic brand it is more likely that a media outlet reports on it.

Brand CSI history. If a topic has already been in the media, it is likely that it continues to be defined as news for the near future. Galtung and Ruge (1965) refer to this phenomenon as inertia in the news generation system. The reason is that the topic has become familiar and easier to interpret for the potential reader. In addition to that, Harcup and O'Neill (2001) argue that editors are also more inclined to report on the next event that fits with the topic to justify the attention an event has attracted in the first place. The recent CSI crisis history therefore plays a role in predicting whether the next crisis event is going to be reported or not. Thus,

H4: The more CSI events have been reported for a brand in the recent past, the more likely a media outlet is to report on a new CSI event.

3.2 CSI Event-related News Selection Variables

Domestic CSI event and foreign brand involved in domestic CSI event. CSI events may occur in every corner of the world. In 2006, Newsweek revealed spying activities on board members and journalists at Hewlett Packard in the U.S. Exactly the same unethical activity was revealed two years later at Deutsche Telekom in Germany. News coverage was very different in each country. Media strongly preferred to report on the event in their home

country. An event that happens in the home country is closer to the people than an event outside the country. We very much follow our earlier line of arguing that cultural proximity increases the relevance of an event and hypothesize

H5a: If a CSI event occurs in the home country a media outlet is more likely to report on it.

We argue that the effect is even stronger if a foreign brand is involved in a domestic CSI event. Consistent with the idea of ethnocentrism (Shimp and Sharma 1987), consumers behave patriotic and wish to protect the domestic economy. Therefore, they are more critical towards foreign brands when they are involved in a potential scandal in their home country. Friebel and Heinz (2014) support this argument by demonstrating that articles on downsizing decisions of firms are much more negative for foreign firms compared to domestic firms. Thus,

H5b: If a foreign brand is involved in a domestic CSI event a media outlet is more likely to report on it.

Evidence. Ambiguity about the facts and consequences of an event hinders a clear interpretation of the event and also may undermine the credibility of newspapers. Therefore, media outlets have a strong preference for clear and unambiguous stories (Galtung and Ruge 1965). Editors ask whether the event is based on evidence or rather relies on rumor and accusations that have not been supported by facts, yet. They also need to consider potential legal consequences, which are less likely if the story is based on evidence. Therefore, we hypothesize

H6: If a CSI event is evidence-based it is more likely that a media outlet reports on it.

Other brand news. Editors strive for a balanced composition of news to meet the demand of their readers for variety (Galtung and Ruge 1965). They also need to keep in mind that the space for reporting news is limited. While less of a restriction, this limitation also applies to online newspapers. As a result, the threshold for reporting on the CSI event of a

brand will be higher if other brand news (positive or negative) competes for space at the same time. This leads to

H7: If other potential brand news is available at the time of a CSI event it is less likely that a media outlet reports on the CSI event.

3.3 Media-outlet-related News Selection Variables

Frequency. Frequency of publication is an important variable that corresponds to the news factor frequency. The basic premise is that a story is easier to tell if the event happens between the publication of two consecutive issues of a newspaper (Galtung and Ruge 1965). The occurrence of a CSI event is much more in sync with a daily frequency. It may, however, be outdated to report on a CSI event in a weekly or monthly magazine. Hence, our hypothesis is

H8: The higher the frequency of publication of the media outlet, the more likely the media outlet is to report on the CSI event.

Political orientation. Newspapers have their own editorial line, competitive strategies, and relationship with advertising partners that influence their business decisions (e.g., Larcinese, Puglisi, and Snyder 2011; Gal-Or, Geylani, and Yildirim 2012). Harcup and O'Neill (2001) summarize such considerations under the newspaper's own agenda and add it to the list of news factors. We hypothesize that the general political orientation of a media outlet shapes the editorial line and therefore may lead to more or less coverage of CSI stories. The left vs. right contrast is the only scheme of political orientation that applies across countries. Profit-oriented companies and their representatives are the natural enemy of left-oriented ideologies. Their power and focus on profit maximization is considered to be the key source for exploitation of the workforce and unequal distribution of wealth (Marx 1867). News about corporate misbehavior therefore is most welcome for the fight against the power of these companies, which fits into the frame of reference of readers of left-oriented newspapers. As a consequence, we hypothesize

H9: The more left-oriented a media outlet, the more likely it is to report on a CSI event.

Advertising relationship with media outlet and selective advertising partnership. Another potentially influential factor on editorial decisions is the relationship to advertising partners. On the one hand, readers of a newspaper have an interest in being informed about relevant content such as firm misbehavior (Gentzkow and Shapiro 2010). On the other hand, outlets rely on advertising money and want to maintain good relationships with their advertisers. News selection decisions are thus vulnerable to the interests of advertising partners (Rinallo and Basuroy 2009). This pressure may be even higher in a selective partnership where the advertiser has concentrated its advertising on one media outlet. Compared to favorable coverage of advertising partners in the media the empirical evidence on *less coverage* of negative stories is very rare. Consistent with our theoretical arguments, we hypothesize

H10a: If the media outlet has an advertising relationship with a brand it is less likely that the media outlet reports on a CSI event the brand is involved in.
H10b: If the media outlet has a selective advertising relationship with a brand it is less likely that the media outlet reports on a CSI event the brand is involved in.

4 Data and Methodology

4.1 Sampling and Search Strategy

We test our model (see Eq. 1 again) in five countries, the U.S., Mexico, the U.K., France, and Germany. Each country belongs to the Western cultural area, for which all of the postulated news factors are supposed to be relevant (Galtung and Ruge 1965). Our observation period covers 6.4 years from 2008 to mid-2014. The countries account for 38% of the world's GDP during this period and include leading (e.g., the U.S.) as well as emerging economies (Mexico).

Sampling brands. We define the brands of YouGov's BrandIndex database as our population. This database offers representative attitudinal brand information for a wide range of brands on a daily basis and has been used in prior research (e.g., Hewett et al. 2016; Luo, Raithel, and Wiles 2013). Across the five countries, we cover 2,300 brands.[10]

Sampling media outlets. Based on published data for 2012, we identify the media outlets with the largest print circulation and the leading online newspapers (based on website traffic, see https://www.alexa.com/siteinfo) in each country. Since reach is the main driver of impact on society, consumers, and investors this focus should not be a critical limitation (Hewett et al. 2016; Kölbel, Busch, and Jancso 2017). Articles for most of the outlets are searchable in the LexisNexis database. If not, we looked for other publicly accessible archives. As a result, we analyze a total of 77 outlets that include between 13 and 18 outlets per country (see Appendix 1 for a list of outlets).

Sampling CSI events. Unlike for product recalls there is no requirement to report CSI events and thus no publicly accessible database is available. Hence, we need to uncover these events ex post on our own. We search for potential CSI events within our sample of YouGov brands and media outlets country-by-country (for a similar strategy, see Flammer 2013). Hence, we look for published information. We are aware of the fact that this strategy comes at a cost that we might oversee a few CSI events that were considered by all outlets in the selection stage but not reported by any of them in none of the 5 countries. This limitation should be less of an issue for the international brands that are part of YouGov's brand list. At the country level, we repeatedly observe that media in one country report on a CSI event for an international brand (e.g., McDonald's in the U.S.) but they do not do so in other countries (e.g., McDonald's in France). Through this mechanism, we effectively uncover events that were *not* reported at all in a specific country. 29% of all observations include such CSI events

[10] Strictly speaking, our results hold only for this selection of brands and associated firms. Since small and less known brands have a lower chance to be monitored by YouGov we believe our results are rather conservative.

that were not covered by any outlet in a country.[11] But even though our sample includes many no-coverage cases, we caution that our sampling strategy does not enable us to derive general statements about CSI news coverage but about the extent to what CSI events are covered across high-reach media and countries.

Identifying CSI events. We proceeded as follows to identify CSI events (see also Flammer 2013). We searched country-by-country for potentially relevant media reports on unethical behavior in all outlets using LexisNexis and online archives. We submitted the brand or company name together with up to 500 keywords per language on typical environmental (e.g., pollution, animal mistreatment), social (e.g., child labor, discrimination), and governance issues (e.g., fraud, corruption). We identified more than 50,000 articles. One co-author and six graduate students (among them native speakers in English, Spanish, French, and German) read and content-analyzed all articles. Based on a set of criteria to identify a CSI event, 1,054 events were finally uncovered (see Appendix 2 for more details). Each event was assigned to one of the three categories of environmental, social, and governance issues. There was no disagreement for the vast majority of assignments (95%). In the few cases of disagreement it was solved by discussion.

We required that a media report must have occurred within the next 14 days after the first published report to be counted as coverage (see also Eisensee and Strömberg 2007, Oliver and Myers 1999). This time frame is more than sufficient to identify all reporting media outlets. We verified this with a random sample of 75 crisis events in 2012 (see Appendix 3). 95% of outlets covered the event within the first three days. Hence, there is virtually no diffusion process for covering single CSI events, i.e., media report the event either immediately or not at all.

[11] Our findings still hold when we restrict the sample to include only those brands that are covered by YouGov in more than one country (74% of all observations).

4.2 Variable Operationalization

In this section, we describe how we measure the selection variables. We combine various databases to build the dataset for estimation. Table 2 presents descriptive statistics. For the sake of brevity, we provide details on the operationalization in Appendix 4, Table A.4.1. Correlations are shown in Table A.4.2.

Table 2: Summary Statistics of News Selection Variables

Variables	Unit	Mean	Max	Min	SD
Brand-related news selection variables (*country specific*)					
Brand salience	[-100 – 100]	34.24	81.64	1.18	2.53
Brand power	[0 – 100]	14.47	75.51	-36.90	2.83
Brand presence: Total advertising	[000 EUR]	3,778	67,535	0	6,565
Brand presence: Online interest	[continuous]	246	10,100	1	44.02
Negative word of mouth	[-100 – 100]	-7.99	53.74	-74.79	3.77
Foreign brand	[dummy]	.53	-	-	-
Brand CSI history	[continuous]	.33	8.42	0	.45
CSI event-related news selection variables *(country specific)*					
Domestic CSI event	[dummy]	.35	-	-	-
Foreign brand involved in domestic CSI event	[dummy]	.12	-	-	-
Evidence-based CSI event (*across countries*)	[dummy]	.43			
Other brand news	[dummy]	.48	-	-	-
Media-outlet-related news selection variables *(media specific)*					
Frequency of publication					
Daily offline newspapers	[dummy]	.45	-	-	-
Daily online newspaper	[dummy]	.34	-	-	-
Weekly newspaper	[dummy]	.20	-	-	-
Political orientation	[-2 =left – 2= right]	.41	2	-2	1.48
Advertising relationship	[000 EUR]	62	7,397	0	69
Selective advertising partnership	[dummy]	.17 [1]	-	-	-
Control variables					
CSI event types (*across countries*)					
Governance issue	[dummy]	.55	-	-	-
Social issues	[dummy]	.37	-	-	-
Environmental issues	[dummy]	.07	-	-	-
Product type (*across countries*)					
Durables	[dummy]	.10	-	-	-
Non-Durables	[dummy]	.08	-	-	-
Retail	[dummy]	.21	-	-	-
Services	[dummy]	.60	-	-	-
Country of outlet					
Germany	[dummy]	.21	-	-	-
United Kingdom	[dummy]	.30	-	-	-
France	[dummy]	.14	-	-	-
USA	[dummy]	.25	-	-	-
Mexico	[dummy]	.10	-	-	-

Note :[1] 49 out of 296 brands did advertise in only one media outlet for the last six month before the brand was involved in a CSI event.

Brand Measures. YouGov, a global market research company specializing in online panels, provided us with access to their BrandIndex database (see Appendix 5 for details). This unique database offers a representative measurement of brand attitudinal variables at the daily level.

Brand power is a multidimensional index that runs from -100 to +100. *Brand salience* measures the depth of brand knowledge and runs from 0–100. We use YouGov's buzz metric and reverse code it to measure *negative WOM*. By using Google Trends data (Stephen and Galak 2012), we measure relative *online interest in the brand* to capture brand presence. We measure *recent advertising pressure*, our second brand presence variable, by a stock variable. Ebiquity, an international market research company, provided us with advertising data across offline and online media. Advertising data, however, are only available to us for the U.K., France, and Germany. To avoid reverse causality issues, we measure all variables before the CSI event.

Brand CSI history of the recent past measures the number of CSI events for the focal brand in the 12 months preceding the current CSI event. *Foreign brand* is a dummy variable that changes across countries.

CSI event measures. *Domestic CSI event* refers to the origin of the crisis event and is a dummy variable. *Evidence* is a dummy variable measuring whether a CSI event is based on rumor or on evidence. We measure *other brand news* by a dummy variable that explains whether other brand-related news was announced in a time-window around the CSI event.

Media outlet measures. We measure *political orientation* with the left vs. right scheme on a 5-point rating scale (Fuchs and Klingemann 1990). We represent a brand's *advertising relationship with media outlet* again by advertising stock. The difference here is that we only consider advertising in the focal outlet. The stock measure is a good proxy as it incorporates both the depth of investment as well as the length (in months). We identify a *selective*

advertising relationship if the focal brand has advertised in the focal outlet exclusively for the last 6 months before the CSI event. We interact this dummy with the earlier advertising relationship variable to create the final variable. *Frequency* of publication refers to weekly or daily issues.

4.3 Summary Statistics and Model-free Evidence

Table 3 presents a summary of our search for CSI events. Our observation period differs somewhat across countries. The reason is that YouGov started collecting their BrandIndex data at different points in time. From 2013 on, YouGov introduced a change of their methodology across markets. Even though the change was modest our observation period by country ends with this change to ensure a consistent measurement of the brand data.

Table 3: Summary Statistics for CSI Events by Country

	Germany	USA	United Kingdom	Mexico	France	Total
Brands and media outlets						
Observation period	01.2008 - 12.2012	01.2009 - 11.2012	01.2009 - 07.2013	05.2011 - 05.2014	09.2011 - 05.2013	02.2008 - 05.2014
Total # brands covered	600	1,200	925	325	300	2,300
Total # media outlets analyzed	15	15	16	13	18	77
CSI events						
# CSI events	450	530	629	213	298	1,054
# brands with CSI event	100	152	168	40	82	324
CSI type of issue:						
Governance issues	.45	.57	.48	.60	.55	.56
Social issues	.45	.35	.43	.33	.38	.37
Environm. issues	.10	.09	.09	.06	.08	.07
Total # observations	6,750	7,950	10,064	2,756	5,364	32,884
Likelihood of reporting on a CSI event	.21	.15	.16	.17	.17	.17
(Standard deviation)	(.41)	(.36)	(.37)	(.37)	(.38)	(.38)
Most criticized brands						
Rank 1	Google / Apple	Google	Google	Telcel	Apple	Google
Rank 2	Facebook	Apple	Apple	Apple	Google	Apple
Rank 3	BP	Facebook	Facebook	Walmart	Samsung	Facebook
Rank 4	Shell	Walmart / BP	Tesco	Google	Société Générale	BP
Rank 5	Microsoft / IKEA / Samsung	UBS	BP	Samsung / Telefonica	EDF / Total	Samsung

Note: The ranking of criticized brands is based on the number of CSI events that are reported for the focal brand.

In total, we identified 1,054 CSI events within the 6.4 years. 324 brands out of 2,300 brands covered in our analysis were involved in these events. This represents a share of 12% or 1.9% per year. Note that the total number of events and brands is smaller than the sum across countries since there is a significant overlap in brands and thus CSI events. Overall, the relative number of brands involved in a CSI crisis event is not very high. The relative frequency of a CSI event amounts to ca. 0.03% per brand and day (1,054 events divided by 3.6 million potential occurrences). Hence, reported CSI events are a very rare incident. Nevertheless, 1,054 events in total remains an impressive absolute number to analyze the drivers of coverage of these events across media.

As Table 3 shows, Google and Apple are among the top five most criticized brands in each country. In Appendix 6, we also provide evidence on the relevance of our hypothesized news selection variables via model-free tests.

4.4 Econometric Model Specification

To take model (1) to the data, we introduce index *k* to denote brand, *l* to denote country, and specify the following mixed binary logit model, where P_{ijk} measures the probability that media outlet *j* in country *l* is reporting on CSI event *i* of brand *k*

$$P_{ijkl} = \frac{e^{Z_{ijkl}}}{1+e^{Z_{ijkl}}}, \tag{5}$$

with $Z_{ijkl} = \alpha_i + \boldsymbol{\beta}'_{brand}\mathbf{x}_{ikl}^{brand} + \boldsymbol{\beta}'_{event}\mathbf{x}_{ikl}^{event} + \boldsymbol{\beta}'_{outlet}\mathbf{x}_{ijk}^{outlet} + \boldsymbol{\beta}'_{control}\mathbf{x}_{ijkl}^{control} + \gamma t_i + v_j + w_k,$

where $\alpha_i = \alpha_0 + \mu_i$ and $\mu_i \sim N(0, \sigma_\mu^2)$.

By specifying an event-specific constant α_i, we control for event-specific characteristics such as severity that are unobservable to us. Specifically, we capture their joint influence in the unobserved term μ_i that is assumed to be normally distributed with zero mean and variance σ_μ^2. We estimate the overall mean α_0 and variance σ_μ^2. Our simulation-based

estimation method also enables us to obtain Bayesian-like posterior estimates of α_i.[12] In addition, we account for period effects via γt_i, where t counts in calendar weeks and γ is a parameter to be estimated.

Equation (5) also includes two random error terms, v_j and w_k, which we assume to be normally distributed with zero mean and a variance to be estimated. By incorporating these error components, we account for unobserved effects that are specific to the outlet and the brand. Note that this specification allows the errors to be correlated within outlets and within brands.

Vector **x** summarizes our brand-related, CSI event-related, and media outlet-related news selection variables. In addition, it includes several control variables. These are dummy variables to measure the type of CSI event (environmental, social, and governance), the country, and the type of product (services, durables, non-durables, and retail). We always exclude the dummy for the reference category for identification purposes. The β parameters are to be estimated.

We estimate the model with simulated maximum likelihood. The likelihood function is conditioned on the unobserved common effects that need to be integrated out to obtain the unconditional likelihood function that can be maximized. We use the estimator implemented in LIMDEP 10.0, which approximates the integral by Monte Carlo simulation (see also Greene 2012, 629-633, 733f).

4.5 Identification and Endogeneity

The large number of CSI events and media outlets creates an effective sample size of more than 32,000 observations. We exploit the rich variation of our focal variables across and

[12] This setup represents a parametric fixed-effects specification since we impose a distributional assumption on the fixed effects. An alternative is a non-parametric specification that estimates each fixed effect individually. The disadvantage of this approach is that it substantially reduces the variance in the data. In addition, event-specific variables may not be identified. Nevertheless, results from a non-parametric specification fully support our main model results.

within CSI events, brands, and media outlets (see Table 2 again) to identify the effects of interest. A CSI event is a rare and exogenous shock and occurs unexpected. Equation 5 models the endogenous decision process of the outlet to report on the event or not. We subsequently discuss potential endogeneity issues that involve advertising variables and other brand news.

Research on product recalls (e.g., Rubel, Naik, and Srinivasan 2011) suggests that firms may change their advertising expenditures ex ante in expectation of lower economic performance after the announcement of the recall. Since the recall is predictable and will happen firms have an incentive to do so. In contrast, it is not for sure that CSI-related firm behavior will be uncovered. Senior management might not even be aware of the CSI issue. Therefore, a proactive change in advertising prior to the disclosed CSI event is not very likely. Employing Granger-causality tests, we do not find evidence that CSI events Granger-cause advertising (see Appendix 7).

Endogeneity concerns might also be related to the variable 'other brand news'. Other news can be interpreted as a "confounding" event known from event studies in finance. In these studies, observations with confounding events are simply removed from the sample to avoid that they interfere with the event of interest. Our estimation results and conclusions are robust when we follow this procedure and exclude observations with other brand news (see Appendix 7).

However, we have an interest in estimating the impact of other brand news on the reporting likelihood to test hypothesis 7. Therefore, we need to check to what extent a potential simultaneity between our dependent variable and the coverage of other brand news affects estimation. For this purpose, we adopt an instrumental-variable (IV) approach. We search for temporal patterns that predict the occurrence of other brand news but are not influenced by the media coverage of CSI events. We consider the periods of Winter and

Summer sales because this may generate news about promotional activities and sales performance of brands. In addition, global sports events such as the Olympics and the football World Cup often result into news about new sponsorships or new product introductions that are announced around these events. The event itself may crowd out other sports news, but this usually affects the sports section of the outlet, not the business section where CSI events are reported.

These instruments turn out to be strong according to the incremental F-statistic (Angrist and Pischke 2009) and valid according to the overidentification Sargan/Hansen-J-test (Wooldridge 2016). The Hausman-Wu test (Wooldridge 2015), however, does not support the assumption that 'other brand news' is endogenous. Since IV estimation produces less efficient estimates we do not focus on IV estimation results. But we report them in full detail including statistics on the strength and validity of instruments in Appendix 7.

5 Results

We present the results of model estimation in Table 4. In the first column, we report estimation results by using the full dataset across all 5 countries. The second column reports on the analysis for those countries for which we have also advertising data available. Since we are testing our theory that is supposed to hold across countries we are interested in average effects, not country-specific effects. Nevertheless, Appendix 8 shows estimation results by country, which strongly support our pooled analysis and conclusions.

The predictive performance of the model is good. We split the sample into estimation and holdout sample. We use the last year in each country for holdout prediction. Misclassification rate amounts to 16.2% (estimation) and 17.6% (holdout) suggesting predictive validity of our model.

Table 4: Estimation Results for Model (5)

DV: Media outlet reports on a CSI event (yes / no)		Scale	Expected sign	Sample I (US, FR, GER, MX, UK) Estimated Coefficient	(SE)	Sample II (FR, GER, UK) Estimated Coefficient	(SE)
Intercept				-3.35368	(.08531)	-3.98809	(.13585)
Standard deviation of intercept				.11098	(.01656)	.35311	(.02524)
Brand-related news selection variables							
Brand salience		[-100 – 100]	+	.01126	(.00106)	.01514	(.00183)
Brand power		[0 – 100]	+	.00733	(.00122)	.00456	(.00183)
Brand presence: Total advertising		[continuous]	+	-	-	.00001	($.3x^{10-5}$)
Brand presence: Online interest		[continuous]	+	.00005	(.00001)	.00005	(.00002)
Negative word of mouth		[-100 – 100]	+	.01131	(.00153)	.00728	(.00244)
Domestic brand (*base*)				-	-	-	-
Foreign brand		[dummy]	-	-.46865	(.03513)	-.19375	(.06224)
Brand CSI history		[continuous]	+	.05924	(.00733)	.06528	(.01122)
CSI event-related news selection variables							
Domestic CSI event		[dummy]	+	.67487	(.03654)	.80430	(.06805)
Foreign brand involved in domestic CSI event		[dummy]	+	.51697	(.04783)	.34298	(.08055)
Evidence-based CSI event		[dummy]	+	.37296	(.02428)	.27513	(.03547)
Other brand news		[dummy]	-	-.36221	(.02398)	-.33219	(.03585)
Media-outlet-related news selection variables							
Frequency:	Weekly offline (base)	[dummy]		-	-		
	Daily online	[dummy]	+	1.50549	(.05186)	1.92000	(.07944)
	Daily offline	[dummy]	+	1.52493	(.05259)	1.64433	(.08135)
Political orientation		[-2=left – 2= right]	-	.00948 N.S.	(.00804)	-.01403 N.S.	(.01118)
Advertising relationship with media outlet		[continuous]	-	-	-	.00005 N.S.	(.00006)
Selective advertising partnership		[continuous]	-	-	-	-.01525	(.00573)
Control variables							
CSI event type	Governance issues (*base*)			-	-	-	-
	Social issues	[dummy]		-.22549	(.02528)	-.29803	(.03720)
	Environmental issues	[dummy]		-.06209 N.S.	(.04456)	-.29171	(.07455)
Product type:	Services (*base*)			-	-	-	-
	Durables	[dummy]		.02987 N.S.	(.03369)	-.00790 N.S.	(.04923)
	Non-durables	[dummy]		-.39085	(.06925)	-.53342	(.11219)
	Retailer	[dummy]		-.07467	(.03466)	-.06867	(.05404)
Country of outlet	United Kingdom *(base)*			-	-	-	-
	Germany	[dummy]		.45163	(.02870)	.40850	(.03957)
	USA	[dummy]		-.63867	(.03471)	-	-
	France	[dummy]		-.06544	(.03228)	.03124 N.S.	(.05372)
	Mexico	[dummy]		-.26563	(.05665)	-	-
Time		[continuous]		.00080	(.00021)	.00075	(.00028)
Error components							
Standard deviation of media-outlet-specific error				.11742	(.01165)	.29296	(.01758)
Standard deviation of brand-specific error				.82318	(.01421)	.94110	(.02213)

Sample I: N (obs) = 32,884 **N (outlets)** = 77 **N (brands)** = 324 **N (CSI events)** = 1,054 **log likelihood =** -12,554
Sample II N (obs) = 16,438 **N (outlets)** = 41 **N (brands)** = 209 **N (CSI events)** = 749 **log likelihood =** -6,280

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$).

5.1 Hypotheses on Brand-related News Selection Variables

We find support for all hypotheses on brand-related news selection variables. Estimated parameters associated with these variables turn out to be significant ($p < .05$). Brands that show a higher salience level and have more brand power are more likely to be reported when they are involved in a CSI event (H1a and H1b supported). We also find evidence for a higher

likelihood for brands that are more present as reflected in their recent advertising pressure and online interest (H1c and H1d supported).

Our results suggest that the level of negative word-of-mouth on a brand before the CSI event increases the chance that a media outlet reports on that event (H2 supported). The chance is also higher if the brand is a domestic brand (H3 supported) and if the brand has had more reported CSI events in the past (H4 supported). Note that we use domestic brand as reference category to allow for the identification of the interaction effect of foreign brand with domestic event. Therefore, we report a negative parameter estimate for foreign brand in Table 4, which is consistent with our hypothesis H3.

5.2 Hypotheses on CSI Event-related News Selection Variables

All hypotheses are supported with respect to our CSI event-related variables. A media outlet is more likely to cover a story on a domestic CSI event (H5a supported). The likelihood is even higher if a foreign brand is involved in this event as shown by the significant interaction effect (H5b supported). We find support for H6 that a CSI event is more likely to be covered if it is based on evidence. The existence of other brand news around the event date, however, reduces the chance of the CSI event to be reported (H7 supported).

5.3 Hypotheses on Media Outlet-related News Selection Variables

Media outlet characteristics also have an influence on the chance that a CSI event is reported. If issues appear at a higher frequency, i.e. daily versus weekly interval, the likelihood for reporting is higher (H8 supported). Table 4 shows that the parameter estimate for political orientation of the outlet is not significant ($p > .10$). Hence, we do not find support for H9 that left-oriented media are more likely to report on a CSI event. A deeper recent advertising relationship of an outlet with a brand involved in a CSI event does not reduce the likelihood of being reported in that outlet. Thus, H10a is not supported. However, we do find

support for H10b that the outlet is significantly less likely to cover the CSI event when the advertising partnership with the brand is *selective*.

5.4 Control Variables

We also find that several of our control variables influence the likelihood of covering a CSI event in the media. Unsurprisingly, the likelihood increases over time confirming the view that companies are increasingly held accountable for their social and environmental footprint. Social issues tend to be less covered in the media relative to governance and environmental issues. Differences of CSI news coverage also exist across countries.

5.5 Robustness Checks

We performed several additional analyses to check whether our estimation results are robust. Appendix 9 informs about these robustness checks in detail. (1) We tested for additional interaction effects among the focal variables. Since the number of interaction variables is large we follow the procedure in Edeling and Fischer (2016) to identify relevant interaction effects. We did not find significant interactions. (2) We substituted a count variable of the number of media reports for our dependent variable. Estimation results from a linear regression model, a Poisson model, and a zero-inflated Poisson model are fully consistent with our focal model results. We also included fixed effects for brand and outlet instead of these respective error components. Results did not change substantially. (3) We considered various alternative operationalizations for variables brand salience, brand power, advertising stock, selective advertising partnership, and brand CSI history. Results did not change substantially. (4) We also added new variables. Specifically, we added brand power dispersion (Luo, Raithel, and Wiles 2013), square of brand power, a dummy for business newspapers as outlet (e.g., Financial Times), and several financial variables for listed companies from Compustat. Based on Likelihood-ratio tests, none of these variables turned out to be relevant. (5) Finally, we performed three specific analyses to check for the

robustness of our sampling strategy for CSI events. The analyses do not suggest any systematic bias to our results.

6 Discussion and Conclusions

Our empirical findings lend strong support for the relevance of the theory of news value to explain the biased coverage of unethical firm behavior. In the following, we discuss the implications from the viewpoint of different stakeholders and what our results offer to marketing theory. To discuss implications, we first need to understand the practical size of the effects.

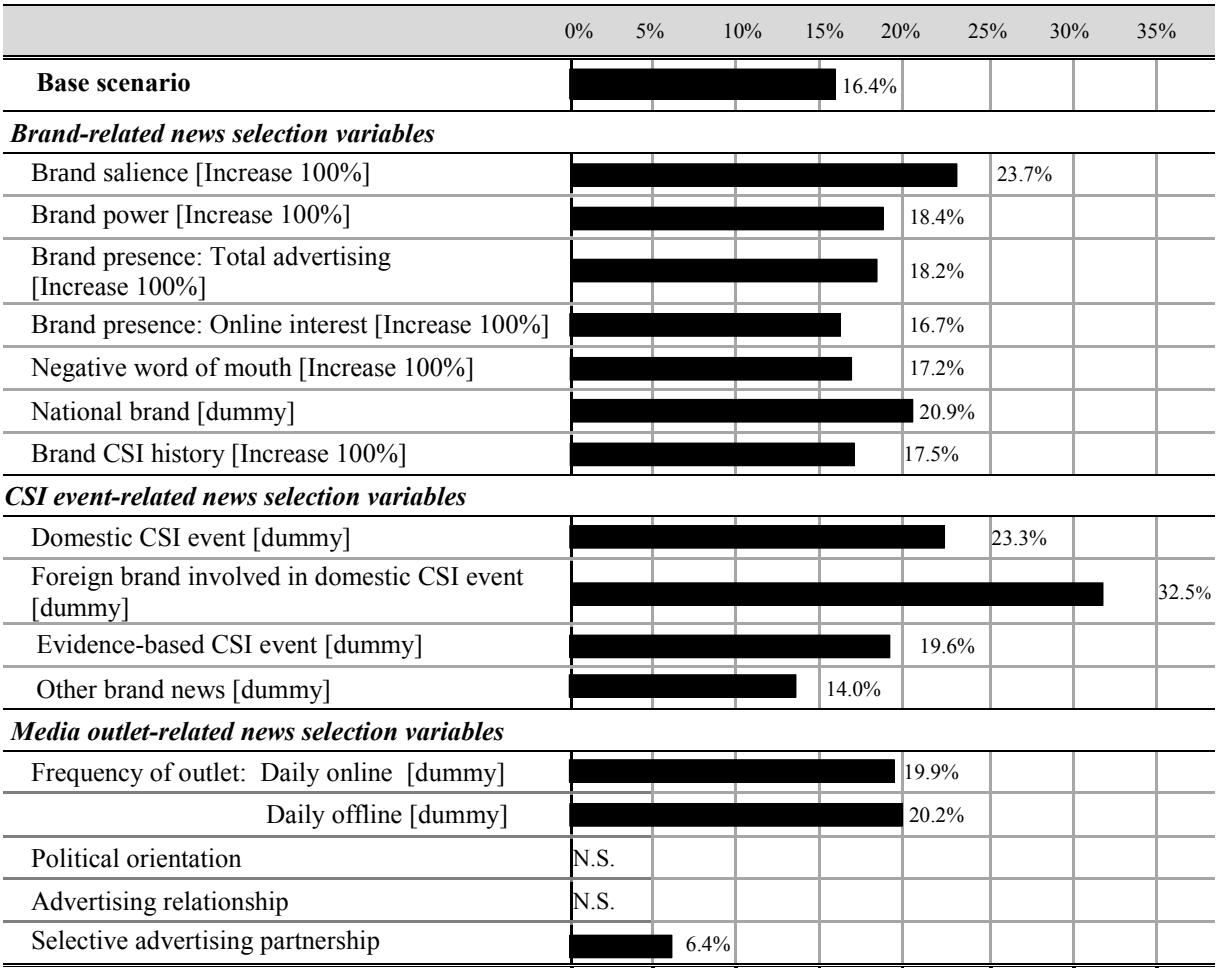
6.1 Magnitude of the Influence of News Selection Variables

Since estimated parameters cannot be directly compared to evaluate the relative importance of news selection variables we use model (5) to simulate the effect of a change in a news selection variable. We focus on news selection variables with significant parameter estimates (supported hypotheses). As baseline (base scenario), we define a situation where all variables are set to their sample average. The reporting likelihood is 16.4% in the base scenario. For simulation, we either increase a metric variable by 100% or set a dummy variable to 1. These simulated values are all within the observed sample range. Figure 2 shows the results of the simulation.

Moving to a daily newspaper has a strong impact on the reporting likelihood (19.9% and 20.2% for online and offline, respectively). The strength of the effect is not surprising since a CSI event might already be outdated for a weekly outlet. Among the other selection variables, three variables stick out in their capacity to increase the likelihood of reporting. First, the likelihood rises to 23.3% if the event occurs in the home country. When a foreign brand is involved the base likelihood almost doubles to 32.5%. The level of brand salience is another strong driver of news coverage. The likelihood increases to 23.7%. Other drivers with a

modest impact on the likelihood are the evidence on the event (19.6%) and brand power (18.4%). Note, however, that for brand power we observe a wide range of values in our sample. Several brands (e.g., Google) show values that are up to three times larger than the sample mean and increase the reporting likelihood to as high as 23.8%.

Figure 2: Impact of Selection Variables on Likelihood of Reporting on a CSI Event



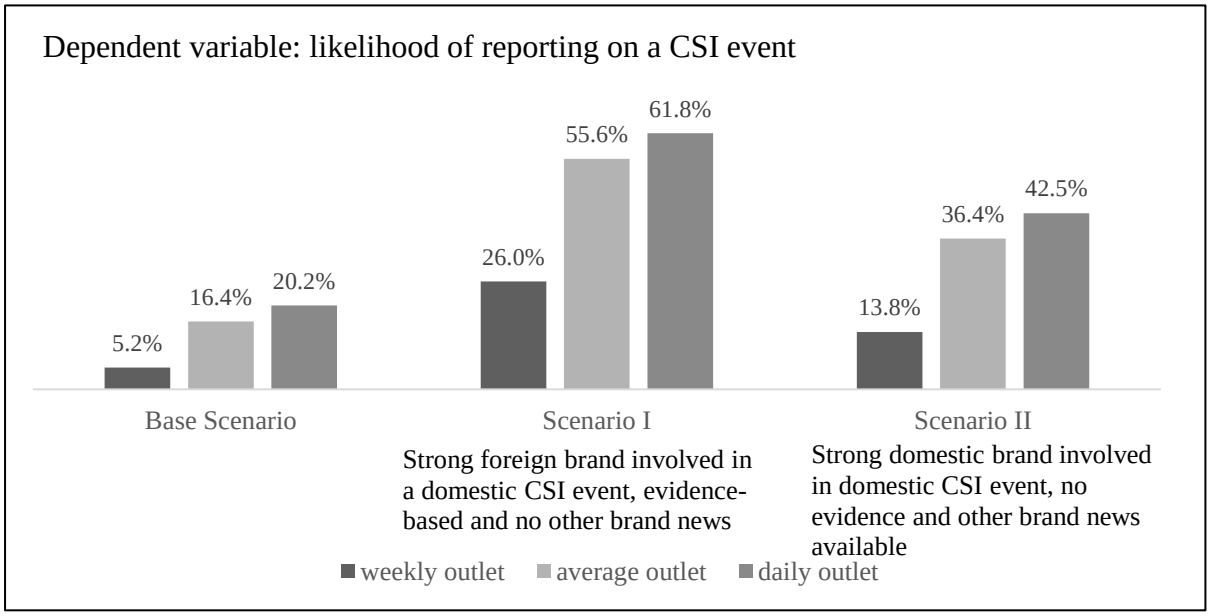
Notes: The analysis simulates the likelihood of CSI coverage. A news selection variable is either set at 1 for the focal category or increases by 100% for metric variables. The base scenario is the sample average for the likelihood of a CSI being covered (all variables in the model are set at their mean).

There are also conditions that may significantly lower the chance of a CSI event being reported. The likelihood reduces to 14.0% if other brand-related news competes with the CSI event. In addition, we find a strong impact of a selective advertising partnership. Such partnership lowers the reporting likelihood to as low as 6.4%. By definition, however, this effect only applies to the specific outlet and does not affect the reporting likelihood of other outlets.

Our simulation reveals that the news selection variables do have a substantial impact on media coverage. We conclude that a large increase in reporting likelihood arises in situations where a *strong brand* (salient and powerful) is involved in a CSI crisis event *outside* its *home market*. In the following, we illustrate cases with typical brand examples.

High reporting likelihood conditions. Figure 3, shows two conditions for which we predict a high likelihood of reporting on a CSI event. In situation I, we have a strong foreign brand (high salience and brand power) that is accused of unethical firm behavior in the focal country (domestic event). Such brands could be Google or Walmart being involved in a CSI event outside the U.S. In addition, the accusations are evidence-based and there is no other, potentially positive brand-related news. We keep all other variables at their sample mean. For comparison, we include the base scenario in Figure 3.

Figure 3: Two Scenarios of High Reporting Likelihood Conditions

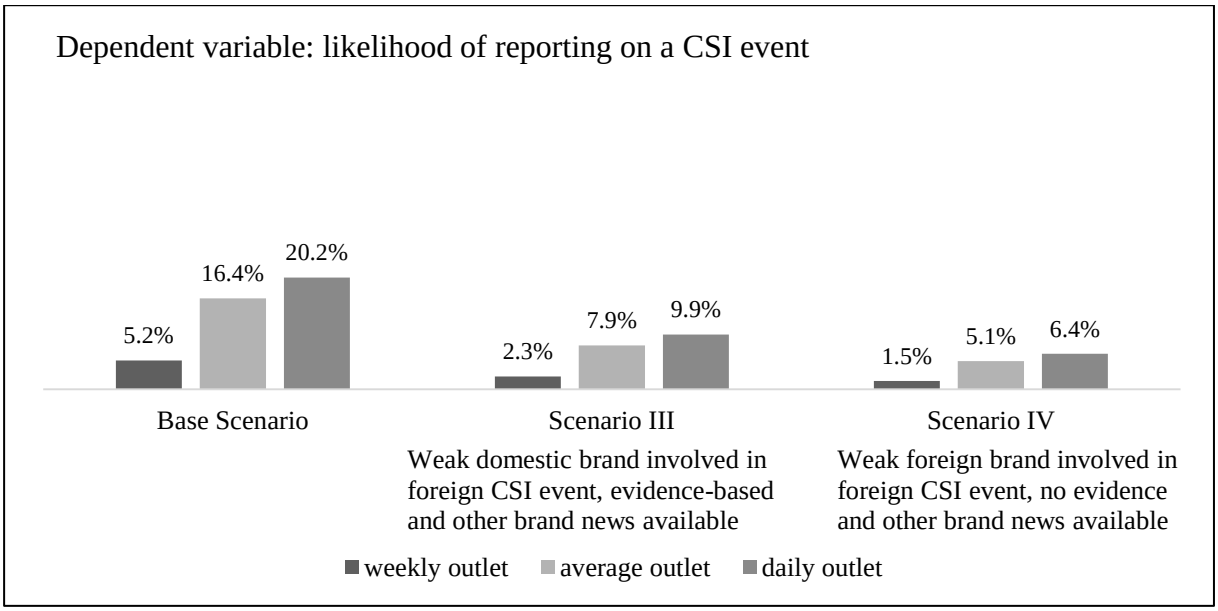


Results are impressive. Under these conditions, the likelihood of a CSI event being reported in a daily newspaper is as high as 61.8%. The likelihood still reaches 55.6% across weekly and daily outlets. Hence, more than half of the media are expected to cover the story.

Scenario II describes a situation when we relax some of the conditions. We still consider a strong brand but assume it is a domestic brand with an event occurring in its home market

(the U.S. for Google and Walmart). The accusation is not evidence-based and there are other brand news competing with the CSI event. Compared with scenario I, the likelihood decreases but it is still very high with 42.5% for a daily newspaper and 36.4% across all media outlets.

Figure 4: Two Scenarios of Low Reporting Likelihood Conditions



Low reporting likelihood conditions. It is also straightforward to obtain conditions under which the reporting likelihood is very low. Figure 4 shows this by employing two scenarios. In scenario III, we consider a weak domestic brand (low brand salience and brand power) that is involved in a CSI event outside of its home country. Example brands would be Prudential or Hollister assuming they are involved in a CSI event outside the U.S. There is no evidence base for the event and other brand news are available around the event date. As shown in Figure 4, the reporting likelihood in the U.S. drops to 7.9% across all outlets and amounts to 9.9% for a daily newspaper. We consider the same weak brand in scenario IV but now assume the brand is a foreign brand involved in a CSI event in a foreign market (e.g., Prudential involved in a CSI event in the U.S. that is reported in U.K. newspapers). The likelihood of reporting for a daily newspaper reduces to 6.4% and is as low as 5.1% across all media outlets.

6.2 Implications for Marketing Theory

Our study makes important theoretical contributions to research on corporate misbehavior. While it is well known that media coverage aggravates the negative effects of corporate social irresponsibility and product recalls on various firm outcomes (e.g., Backhaus and Fischer 2016; Kölbel, Busch, and Jancso 2017; Liu and Shankar 2015), we do not know much about when and why media cover such corporate news. Our study is the first step to answer these questions and extends the literature on corporate social irresponsibility and firm crisis events. Our theory and the empirical results reveal that salient and powerful brands face a much higher likelihood to be covered in a negative story on unethical firm behavior. The size of the effect is significant. This finding challenges the established view that a strong brand protects the company from the negative impact of a crisis event (e.g., Cleeren, van Heerde, and Dekimpe 2013; Liu and Shankar 2015). The shield effect may still be there but it is probably much smaller if not compensated due to the opposite mediation effect via media coverage.

We also extend the literature on international marketing. Our study shows that the extent of media coverage largely depends on whether the brand is a foreign or a domestic brand and whether the CSI event occurs in the home market or a foreign market. As a result, the potential harm effects on brand equity are not uniform across countries, which adds to the complexity of building and maintaining international brands. On the one hand, the advantage from pride in domestic brands may backfire if the brand is involved in a CSI event. The brand receives more negative media attention in its home market. On the other hand, being a foreign brand involved in a CSI event in another market also generates larger media coverage in that market due to consumer patriotism.

We also add to the literature on advertising and media relationships. Prior literature suggests that advertisers have a strong influence on media outlets to cover their products more

often and in a favorable manner (e.g., Gentzkow and Shapiro 2010; Rinallo and Basuroy 2009). We extend the knowledge and document that advertisers may also have the power to deter media from covering negative stories about their brands, provided they are in an exclusive relationship. This conclusion is not intuitive because editors act against readers' preferences over disclosure of firms' misbehavior. The power to manipulate appears to be substantial.

6.3 Implications for Firms, Society, and Media

Our results also have important implications for firms, media, and society. Implications may be in conflict to each other as different stakeholder groups pursue different goals. First, we note that media fulfill an important role in modern, democratic societies since they significantly contribute to the formation of public opinions (Xiang and Sarvary 2007). We have been observing a growing demand for corporate social responsibility by consumers and societies for the last decade (e.g., Flammer 2013). In view of increasing requirements for ethical firm behavior, it is highly relevant that consumers be informed about potential firm misbehavior in a transparent and unbiased manner. Our study, however, shows that there is a strong selection bias of media when it comes to reporting about a CSI event. The more popular a brand is and the more the firm has to lose, the more likely are media to cover the story. The strong selection bias raises serious concerns about whether media adequately fulfil their information role for society.

The discrimination of foreign brands in the news coverage once they are involved in a domestic CSI event also has important implications. It may serve customers' needs for pride and protection of their home economy at first glance. But it might also backfire through fueling resentments towards importing foreign products and services. To the extent that this impedes international trade and the interdependence of economies, consumers will eventually suffer from a severe loss of welfare effects (Feenstra 2016).

What are the implications for firms and managers? First, our study educates managers that CSI events are not equally covered in the media. While many of them might have real-world examples available suggesting the existence of such bias, they find it difficult to predict when an event will be broadly covered in the press and when not. Our study identifies a large group of drivers of CSI news coverage and quantifies their relative magnitude in driving the likelihood of coverage. These results help managers predicting and anticipating media attention that can and should be used for preparing the organization to better handle the risks.

There is probably not much what firms can do reactively when suddenly overtaken by a CSI event. As our data show media coverage is immediate. But there are ways to proactively prepare for and handle such situations. The first recommendation is to avoid the occurrence of a CSI event. This recommendation is not trivial when it comes to decide about allocating scarce resources to CSR programs versus implementing processes and systems to avoid environmental, social, or governance issues. Many firms tend to be focused on improving their CSR rating since this is what external rating agencies and investors demand. As a result, they might neglect investments into the prevention of CSI behavior as happened to BP. The oil giant invested heavily into CSR programs and raised its CSR rating but finally suffered from a string of harmful environmental issues (Kölbel et al. 2017). The broad media coverage amplified the effects of negative press. Our results suggest that in particular large and well-known brands such as BP, Apple, or Google, are on a higher risk of being covered. Note that CSR investments also improve brand rating and increase the popularity of the brand. On the positive side, these firms also dispose of higher financial resources, which should be re-allocated into prevention practices.

It could also be beneficial to think about voluntary disclosure of a CSI issue in a preemptive manner, especially when it is unlikely to avoid disclosure. *First*, management is in the driver's seat and may influence the content and quality of press reports. An important

aspect here is to avoid that the news is perceived as evidence-based. As our results show, this reduces media coverage substantially. *Second*, self-reporting such issues reduces the novelty of the news and might even positively shape the perception as responsible company. *Third*, when management decides about going public with negative CSI news they are also free to launch other, positive brand news at the same time. This other news has the power to largely reduce negative media coverage as our results suggest.

6.4 Limitations and Future Research

Our study is not without limitations that may stimulate future research. While we cover a selection of important Western economies, we do not know to what extent our results extend to other important economies such as China, India, or Japan. Because of cultural differences not all and possibly additional news selection factors might play a role, which would be good to test in a further study. We also focus on CSI issues but there are many other potentially negative firm events, e.g., product recalls and celebrity scandals. These events would be worthwhile to study. Finally, we consider the coverage of single CSI events. Future work could study the dynamics and evolution of a broader CSI issue that encompasses several single events and related media stories.

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APPENDIX PAPER I

WHEN DO MEDIA REPORT NEGATIVE NEWS ABOUT A BRAND? A STUDY OF CORPORATE SOCIAL IRRESPONSIBILITY EVENTS ACROSS FIVE COUNTRIES

In this Appendix, we provide the following information:

1. An overview of the 77 media outlets used in this study and their political orientation
2. Details about our search strategy identifying CSI events
3. An additional analysis on the diffusion of media reports over time
4. Information on the correlation and operationalization of the news selection variables
5. Information on the YouGov methodology
6. Model-free insights into the relevance of our hypothesized variables
7. Information on exogeneity tests and IV estimation
8. Estimation results for model by country
9. Various robustness checks

Appendix 1: Media Outlets Used in the Empirical Study

Table A1
Media Outlets and Their Rating of Political Orientation

Country	Name	Type	Political Orientation
MX	El Norte	Daily	Centre-right
MX	Mural Expresión de Jalisco	Daily	Centre-right
MX	Reforma	Daily	Centre-right
MX	El Universal	Daily	Centre
MX	Notimex	Online	Centre
MX	El Financiero	Online	Centre
MX	La Jornada	Online	Left
MX	Economista	Online	Centre-right
MX	La Cronica De Hoy	Online	Centre-right
MX	Milenio/ El Diario De Monterrey	Online	Centre
MX	CNN Expansion	Online	Centre
MX	El Sol de Mexico	Online	Right
MX	Excelsior	Online	Centre-right
GER	Süddeutsche Zeitung	Daily	Centre-Left
GER	Die Tageszeitung	Daily	Left
GER	Frankfurter Rundschau	Daily	Left
GER	Die Welt	Daily	Right
GER	Die Zeit	Weekly	Centre-Left
GER	Spiegel	Weekly	Centre
GER	Stern	Weekly	Centre-right
GER	Handelsblatt	Daily	Centre-right
GER	Frankfurter Allgemeine	Daily	Centre-right
GER	Welt Online	Online	Left
GER	Zeit Online	Online	Centre-Left
GER	Spiegel Online	Online	Centre
GER	Handelsblatt Online	Online	Centre-right
GER	Bild.de	Online	Right
GER	FAZ.net	Online	Centre-right
USA	USA Today	Daily	Centre-right
USA	Wall Street Journal	Daily	Right
USA	The New York Times	Daily	Left
USA	Daily News (New York)	Daily	Centre-right
USA	The New York Post	Daily	Right
USA	The Washington Post	Daily	Centre-Left
USA	The Atlantic	Monthly	Left
USA	The Denver Post	Daily	Left
USA	National Journal	Weekly	Centre
USA	CNN.com	Online	Centre
USA	MSNBC.com	Online	Left
USA	USNews.com	Online	Centre
USA	Washington Post.com	Online	Centre-Left
USA	NYT.com	Online	Left
USA	Business Review USA	Online	Centre
UK	Euroweek	Weekly	Centre
UK	Financial Times	Daily	Centre-right
UK	Morning Star	Daily	Left
UK	The Daily Mail	Daily	Right
UK	The Daily Star	Daily	Centre
UK	The Daily Telegraph	Daily	Right
UK	The Evening Standard	Daily	Right
UK	Daily Express	Daily	Right
UK	The Guardian	Daily	Left
UK	The Independent	Daily	Centre-Left
UK	The Mirror	Daily	Left
UK	The Observer	Weekly	Centre-Left
UK	The (Sunday) People	Weekly	Centre
UK	guardian.co.uk	Online	Left
UK	Independent.co.uk	Online	Centre-Left
UK	MailOnline (dailymail.co.uk)	Online	Right
UK	telegraph.co.uk	Online	Right
FR	Le Parisien + Le Firago Economie	Daily	Centre-right
FR	Aujourd´hui en France	Daily	Right
FR	Le Figaro	Daily	Right
FR	Le Monde	Daily	Centre-Left
FR	Ouest France	Daily	Centre-right
FR	Sud Ouest	Daily	Centre
FR	La voix du nord	Daily	Centre-right
FR	Le Télégramme	Daily	Centre
FR	La Montagne	Daily	Centre-Left
FR	La nouvelle République du Centre Ouest	Daily	Centre
FR	L´Express	Weekly	Centre
FR	Le Point	Weekly	Right
FR	Les Echos	Daily	Right
FR	latribune.fr	Online	Right
FR	Lemonde.fr	Online	Centre-Left
FR	Leparisien.fr	Online	Centre-right
FR	Lepoint.fr	Online	Right
FR	Lesechos.fr	Online	Right

Notes: Official statistics used are Eurotopics (BpB), Worldpress.org, Lakeland College, Auswärtiges Amt. In addition, 24 expert interviews were conducted.

Appendix 2: Search Strategy for Identifying CSI Events

In principle, a CSI event can occur each day. For the brands covered in our observation period, this implies more than 3.6 million brand-day combinations to search. We add together the number of observed days per brand across countries. The total number of brand-day combinations over 6.4 years amounts to 5.4 million. Since the observation period for YouGov brand data differs across countries the effective number of brand-day combinations reduces to 3.6 million. Browsing every potential source, however, turned out to be infeasible and revealed another problem. Since the Internet offers an open and unregulated space for information sharing we found well-substantiated stories but also arbitrary accusations of firm misbehavior. Quality media quickly sort low-quality information out during the pre-selection phase (see Figure 1 in the paper again), which we do not model. To keep our search goal-oriented and rule-based we therefore search for potential CSI events within our sample of YouGov brands and media outlets country-by-country. We set up relevant criteria (see below) to identify CSI events.

I.) CSI event must be in line with the definitions of CSI

Business actions are considered as socially irresponsible if they go against moral norms and values and are related to environmental issues, governance issues, or social issues (e.g., Backhaus and Fischer 2016; Lange and Washburn 2012).

II.) CSI event must be in line with the definition of a brand crisis event

Crisis events are unexpected events that threaten a brand's perceived ability to deliver benefits and thereby possibly weakening brand equity (Ahluwalia, Burnkrant, and Unnava 2000; Pullig, Netemeyer, and Biswas 2006; Dawar and Lei 2009; Dutta and Pullig 2011).

III.) CSI event must correspond to one of the 3 CSI event types

Corporate Social Irresponsibility events

Governance issues	Social issues	Environmental issues
Management misconduct relating to corporate governance or social norms and societal rules • Transparency violations • Consumer fraud with regard to - Sales practices - Pricing policies • Corruption - Bribery - Money laundering - Investment controversy - Tax disputes - Breach of trust	Violation of compliance with human rights and conditions of employment • Violations of employee relations with respect to - Discrimination - Benefits and wages - Diversity standards - Local working conditions - Foreign labor issues • Human rights violations	Violation and endangerment of environmental surroundings • Violation and endangerment of nature • Violation and endangerment of animals / wildlife

IV.) CSI event is either a rumor-based or evidence-based CSI event.

If a rumor-based CSI event is approved at a later point in time it is treated as a new CSI event.

Appendix 3: Diffusion of Media Reports

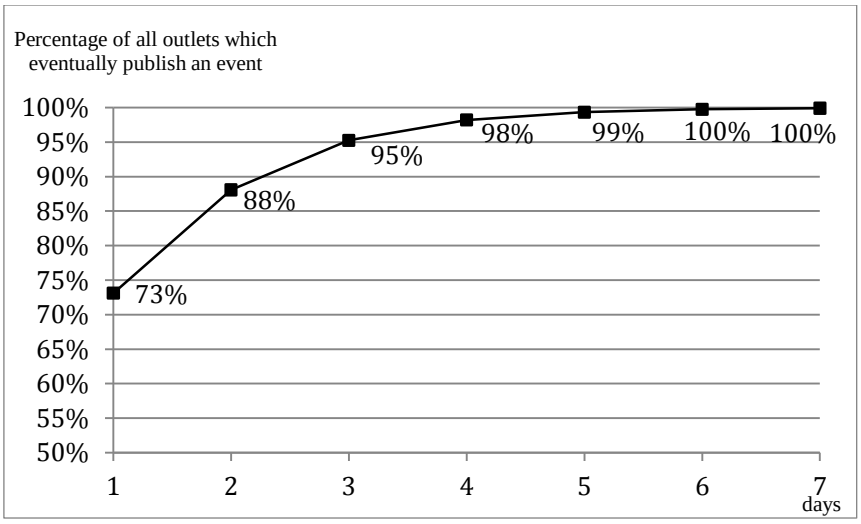
In order to investigate the diffusion of a single CSI event across media, we randomly selected 75 CSI events from the year 2012. We specify a logit model for proportional data to measure the evolution of CSI coverage over time. We measure penetration in terms of cumulated percentage within all outlets that finally report on the event. Time is the only predictor variable. The time interval is 24 hours or a day, respectively. The first day ends 24 hours after an event has occurred for the very first time in whatever time zone.

Following Jedidi et al. (1997), we use a finite mixture model to allow for different types of penetration curves. We varied the number of clusters from 1 to 4 and determine the best cluster solution based on BIC. Table A.3 suggests that there is only one type of curve. Figure A.3 shows this penetration curve. 95% of media will have reported after only 3 days and all media after 6 days.

Table A.3
Determination of Best Cluster Solution

Number of clusters	Number of parameters	Log Likelihood	BIC
1	2	-181.39348	**377.6**
2	4	-176.97290	391.0
3	6	-176.97290	413.2
4	8	No convergence	

Figure A.3
Evolution of CSI Event Coverage



Appendix 4: Operationalization and Correlation of Variables

In this section, we describe how we measure the news selection variables. We combine various databases to build the dataset for estimation. Table A.4.1. gives a detailed overview of the operationalization of the news selection variables. Furthermore, we provide a correlation table of all variables in Table A.4.2.

Table A.4.1
Operationalization of News Selection Variables

Variable [unit]	Description in detail
Brand-related news selection variables (*country-specific*)	
Brand power [-100 – 100] Source: YouGov	Brand power is measured along six dimensions that are included in YouGov's BrandIndex. These dimensions are perceptions of: brand quality, brand value, brand satisfaction, brand recommendation, brand identification, and brand overall impression. For each dimension, respondents independently pick brands out of a competitive range of up to 20 brands to evaluate them. We take the country-specific mean of the 30 days preceding the first media report on a CSI event (see Appendix 5 for more details on data collection and the exact items).
Brand salience [0 – 100] Source: YouGov	Brand salience measures the retrieval behavior that is observed when respondents evaluate brand power dimensions. We count the relative number of negative and positive responses for a brand across all six dimensions and respondents. 100 means that all respondents evaluate the brand on all dimensions (either positively or negatively). We take the country-specific mean of the 30 days preceding the first media report on a CSI event (see Appendix 5 for more details on data collection).
Brand presence: Total advertising [000 EUR] Source: Ebiquity	Total advertising is measured by a stock variable. Let S_t denote advertising stock in week t and x_t be total advertising expenditures across media channels. We compute the stock by $S_t = \sum_{\tau=0}^{t} \rho^{\tau}\ x_{t-\tau}$, where ρ measures the carryover rate. We consider total advertising expenditure of a brand by country in the 24 months preceding the month of the CSI event. We convert the generalized monthly mass media carryover of .523 reported by Köhler et al. (2017) into its weekly equivalent.
Brand presence: Online interest [continuous] Source: Google Trends	Online interest in the brand is measured by using Google Trends data (Stephen and Galak 2012). Google Trends is a normalized index for search volume data. Even though this data does not reveal the absolute amount of search requests for a specific brand, it informs about interest for brands in a country relative to each other, which is sufficient for our purpose. Measurement requires a baseline against which searches for all other brands are indexed. Coca Cola is a well-searched brand in all countries and serves as our baseline. We take the country-specific mean of the 30 days preceding the first media report on a CSI event.
Negative word of mouth [-100 – 100] Source: YouGov	Negative WOM corresponds to YouGov's buzz metric that calculates the relative number of respondents who heard or saw something negative or positive about a brand in the last two weeks. The buzz metric runs from -100 (all respondents report negative buzz) to +100 (all respondents report positive buzz). We reverse the metric for our purpose to measure negative WOM and take the country-specific mean of the 30 days preceding the first media report on a CSI event (see Appendix 5 for more details on data collection).
Origin of brand: Foreign brand [dummy] Source: Online search	Foreign brand is a dummy variable that changes across countries. Based on company headquarter information, it indicates whether a brand originates from the focal country or is considered a foreign brand. We pay attention to the fact that companies may have acquired brands originating from different countries over the years. These are appropriately treated as domestic brand in their original home country. For example, Beck's is coded as German and Budweiser as American beer though both brands belong to Anheuser Busch Inbev, today's largest brewery group with headquarter in Brussels, Belgium.

Brand-related news selection variables (*country-specific*)	
Brand CSI history [continuous] Source: Press search	Brand CSI history measures the number of CSI events for the focal brand in the 12 months preceding the current CSI event. We apply a linear time weight to the accumulation to account for the process of forgetting. This weighting also alleviates the censoring issue that is associated with this variable at the beginning of our time-series.
CSI-related news selection variables (country-specific)	
Domestic CSI event [dummy] Source: Press search	Domestic CSI event refers to the origin of the CSI event and is a dummy variable. For the vast majority of events, this is unambiguous. If there was disagreement among coders it was solved by discussion. Very few events, such as the manipulation of interest rates (LIBOR scandal), are truly global events. These are coded domestic in all countries.
Foreign brand involved in domestic CSI event [dummy] Source: Press search	Dummy variable indicating national CSI event when a foreign brand is involved.
Evidence-based CSI event (*across countries*) [dummy] Source: Press search	Evidence-based CSI event is a dummy variable measuring whether a CSI event is based on rumor or on evidence. We code an event as evidence-based if accusations in the media report are confirmed by the company or supported by legal institutions (e.g., court decisions).
Other brand news [dummy] Source: Press search	Other brand news is dummy variable that explains whether other brand-related news was announced in a time-window around the CSI event. We followed the event-study methodology and considered financial news (e.g., earning announcements, mergers and acquisitions, large investments), consumer-related news (e.g., new product releases, changes in price strategies, product recalls), and other potentially relevant brand-related news (e.g., death of former CEOs, external industry shocks). Our time window starts 3 days before the CSI event and ends 7 days after the event date.
Media-outlet-related news selection variables	
Frequency of publication [dummies] Source: Press search	Dummy variables for weekly and daily online / offline newspapers
Political orientation [-2=left – 2= right] Source: Worldpress, interviews	Political orientation is measured with the left vs. right scheme on a 5-point rating scale (Fuchs and Klingemann 1990). To calibrate the scale, we consulted public sources such as worldpress.org and randomly selected 23 post-doctoral researchers and professors in the field of politics and journalism in all five countries. We asked them to rate the political leaning of the media outlets of their countries on a 3-point scale. In case of consistent ratings across raters and public information, we rated the outlet as left, center, or right. In all other cases, we rated in-between, i.e. either center-left or center-right (see also Appendix 1).
Advertising relationship with media outlet [000 EUR] Source: Ebiquity	Advertising relationship with media outlet is again measured by advertising stock (see above). The difference to brand presence (total advertising) is that we only consider advertising expenditures in the focal outlet. The stock measure is a good proxy as it incorporates both the depth of investment as well as the length (in months).
Selective advertising partnership [interaction: 000 EUR] Source: Ebiquity	Selective advertising relationship is identified by a dummy variable that indicates that the focal brand has advertised in the focal outlet exclusively for the last 6 months before the CSI event. We interact this dummy with the advertising relationship variable to create the final variable.

Table A.4.2
Correlation Table

		1	2	3[a]	4	5	6	7	8	9	10	11	12	13	14	15[a]	16[a]	17	18	19	20	21	22	23	24	25	26
Brand-related news selection variables																											
1 Brand salience		1.00																									
2 Brand power		0.62	1.00																								
3 Brand presence:	Total advertising[a]	0.27	0.13	1.00																							
4	Online interest	0.21	0.03	-0.04	1.00																						
5 Negative word of mouth		-0.56	-0.84	-0.16	0.05	1.00																					
6 Foreign brand		-0.15	0.07	-0.25	0.01	-0.05	1.00																				
7 Brand CSI history		0.37	0.36	-0.02	0.19	-0.25	0.11	1.00																			
CSI event-related news selection variables																											
8 Domestic CSI event		0.02	-0.16	0.2	-0.03	0.12	-0.45	-0.15	1.00																		
9 Foreign brand involved in domestic CSI		-0.01	-0.06	-0.02	-0.02	0.05	0.28	-0.01	0.49	1.00																	
10 Evidence-based CSI event		-0.01	0.05	-0.01	-0.03	-0.04	0.01	0.07	0.03	0.02	1.00																
11 Other brand news		0.21	0.19	0.04	0.2	-0.1	0.01	0.33	-0.07	-0.05	-0.02	1.00															
Media outlet-related news selection variables																											
12 Frequency of outlet:	Daily online	0.08	0.05	0.02	-0.03	-0.11	0.00	-0.01	0.00	0.01	0.01	-0.03	1.00														
13	Daily offline	-0.04	-0.02	-0.04	0.03	0.05	-0.02	0.01	0.02	0.00	0.00	0.03	-0.72	1.00													
14 Political orientation		-0.02	-0.01	0.02	0.04	-0.03	0.06	0.02	-0.01	0.01	0.00	0.02	0.06	0.02	1.00												
15 Advertising relationship with outlet[a]		0.1	0.06	0.27	0.01	0.02	-0.2	0.01	0.14	-0.04	-0.04	0.07	0.05	0.02	0.13	1.00											
16 Selective advertising partnership		0.1	0.04	0.33	0.01	0.03	-0.19	0.03	0.14	-0.04	-0.04	0.07	0.02	0.02	0.09	0.9	1.00										
Control variables																											
17 CSI event type:	Social issues	0.17	0.12	-0.03	0.11	-0.09	0.02	0.11	-0.07	-0.02	-0.05	0.04	-0.01	0.00	0.00	0.00	0.01	1.00									
18	Environm. issues	-0.08	-0.15	-0.03	-0.11	0.14	0.04	-0.05	-0.09	0.01	-0.01	-0.04	0.00	0.00	-0.01	-0.02	-0.01	-0.25	1.00								
19 Product type:	Durables	-0.05	0.13	0.03	-0.13	-0.14	0.13	0.12	-0.17	-0.06	-0.06	0.1	0.01	-0.01	0.01	-0.02	-0.02	0.04	-0.05	1.00							
20	Non-Durables	0.04	0.03	0.18	-0.09	-0.03	0.05	-0.13	0.02	0.09	-0.06	-0.11	0.02	-0.02	-0.01	-0.04	-0.02	-0.09	0.00	-0.09	1.00						
21	Retailer	0.08	0.07	0.2	-0.04	-0.11	-0.17	-0.03	0.11	-0.05	-0.02	-0.02	0.00	0.00	-0.01	0.17	0.19	0.18	-0.06	-0.19	-0.08	1.00					
22 Country: Germany		-0.06	-0.07	0.12	-0.01	0.11	0.16	-0.01	-0.17	-0.04	-0.02	-0.04	0.04	-0.15	-0.01	-0.09	-0.05	0.05	0.03	0.01	0.02	0.03	1.00				
23 USA		0.16	0.06		-0.05	-0.07	-0.43	-0.04	0.21	-0.04	0.07	-0.05	0.05	-0.01	-0.17			-0.06	0.00	-0.04	-0.01	-0.03	-0.29	1.00			
24 France		-0.12	-0.07	0.03	0.2	0.00	0.03	0.08	0.06	0.01	0.02	0.11	-0.07	0.12	0.21	-0.05	-0.04	-0.02	-0.02	0.02	-0.07	-0.05	-0.22	-0.25	1.00		
25 Mexico		0.25	0.18		-0.11	-0.46	0.15	-0.01	-0.01	0.08	-0.01	-0.06	0.21	-0.1	0.06			-0.04	-0.03	0.04	0.08	-0.01	-0.15	-0.17	-0.13	1.00	
26 Time		0.01	0.03	-0.08	0.09	-0.12	0.14	0.2	-0.09	0.00	0.03	0.05	0.01	0.04	0.09	-0.04	-0.06	0.00	-0.05	0.03	0.02	-0.05	-0.22	-0.17	0.31	0.21	1.00

Notes: N = 32,884 (all correlations larger than |0.010| are significant for $p < .05$), [a] N = 16,438 for correlations with advertising data (all correlations larger than |0.014| are significant for $p < .05$).

Appendix 5: Information on YouGov Methodology

In the following, we describe the procedure YouGov used to collect brand salience, brand power and word-of-mouth information. YouGov monitors about 2,300 brands in the selected five countries. They cover a wide range of industries. Approximately 2,000 consumers are surveyed per country and day. Table A.5 shows the items and questions relevant for the operationalization of our variables.

Table A.5
YouGov Brand Rating Items

Item	Questions
Brand buzz (Word-of-mouth measurement)	About which of the following brands have you recently heard anything positive either through media news, advertising, or word-of-mouth? About which of the following brands have you recently heard anything negative either through media news, advertising, or word-of-mouth?
Brand quality (BrandIndex)	Which of the following brands do you think stand for good quality? Now, which of the following brands stand for poor quality?
Brand value (BrandIndex)	Which of the following brands do you think provide good value for money (or you would be willing to invest parts of your spare time)? By that we don't mean "cheap," but that the brands offer a customer a lot in return for the price paid. Now, which of the following brands do you think provide poor value for money (or you would be willing to invest parts of your spare time)? By that, we don't mean "expensive," but that the brands do not offer a customer much in return for the price paid.
Brand satisfaction (BrandIndex)	Choose all brands you are satisfied with or for which you believe you would be satisfied if you were a customer? Choose all brands you are dissatisfied with or for which you believe you would be dissatisfied if you were a customer?
Brand Recommendation (BrandIndex)	Which of the following brands would you recommend to a friend or colleague? And which of the following brands would you recommend a friend or colleague to avoid?
Brand identification (BrandIndex)	Which of the following brands would you be proud of to work for or to be associated with? Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for. Now, which of the following brands would you be embarrassed to work for or be associated with? Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for.
Brand overall Impression (BrandIndex)	Overall, of which of the following brands do you have a positive impression? Now, of which of the following brands do you have an overall negative impression?

Brand salience and brand power are measured based on the YouGov BrandIndex. The BrandIndex consists of six items: perceived brand quality, brand value, brand satisfaction, brand recommendation, brand identification, and brand overall impression. Table A.5 provides details on the exact question for each item. Additionally, YouGov also asks respondents with respect to a seventh item: brand buzz. Brand buzz represents our word-of-mouth measurement (also, see Table A.5).

The data collection of YouGov can be described as follows: For each item and brand a minimum of 30 to 100 respondents per country and day are randomly drawn from the panel and provided with a set of up to 25 brands for a pre-selected industry. To reduce common method bias respondents evaluate only one brand item per industry per enquiry. First, respondents select those brands (per click) for which they agree with the positive statement of the brand item (e.g., good brand quality). Then, they select those brands for which they agree with the negative statement of the brand item (e.g., poor brand quality). Thus, a brand is either rated as positive, neutral, or negative on each item.

The variable *brand salience* is calculated by summing up the number of respondents who agree with the six positive statements (items) and the number of respondents who agree with the six negative statements (items) divided by the total number of respondents (= number of positive + negative + neutral respondents) multiplied by 100. As a consequence, the brand salience measure is a ratio-scaled variable and lies within the range of 0 to +100.

The variable *brand power* (= YouGov's BrandIndex) is calculated by the subtraction of the total number of all positive respondents from the total number of all negative respondents divided by the total number of respondents. The resulting value is multiplied by 100. As a consequence, the YouGov BrandIndex brand power measure is a ratio-scaled variable and lies within the range of -100 to +100.

The *word-of-mouth* metric is based on the brand buzz item and obtained by subtracting all positive responses from negative responses divided by the total number of respondents. The variable is ratio-scaled variable and lies within the range of -100 to +100. For a more direct interpretation, we reverse code this variable.

The observation period by country ranges from the start of data collection by YouGov until the change in its methodology has been introduced. As a result, we have the following overlapping observation periods by country: Germany (01.2008 to 12.2012), USA (01.2009 to 11.2012), England (01.2009 to 07.2013), Mexico (05.2011 to 05.2014), and France (09.2011 to 05.2013).

Appendix 6: Model-free Evidence

We provide first model-free insights into the relevance of our hypothesized variables for the selection decision of media outlets to report on a CSI event or not. For this purpose, we compare mean media coverage rates between groups of observations that scale high and low on a selection variable (see Table A.6). We create these groups for the metric variables based on their sample mean. For categorical variables, groups are already defined. Table A.6 shows that the differences in media coverage are in the hypothesized direction for all news selection variables. The differences are also statistically significant ($p < .05$) according to the χ^2-test.

Table A.6
Model-Free Univariate Tests

	N	Mean of reporting likelihood	SD	Difference between group means	Test statistics	
					t-value	χ^2-value
Brand-related news selection variables						
Brand salience (high)	17,623	.19	.39			
Brand salience (low)	15,261	.15	.36	.04	9.00***	79.84***
Brand power (high)	16,106	.18	.38			
Brand power (low)	16,778	.17	.37	.01	2.26***	5.12***
Brand presence: Total advertising (high)	5,097	.21	.41			
Total advertising (low)	11,341	.16	.37	.05	7.49***	55.86***
Brand presence: Online interest (high)	6,338	.21	.41			
Online interest (low)	26,546	.16	.37	.05	7.74***	66.83***
Negative word of mouth (high)	15,179	.18	.38			
Negative word of mouth (low)	17,705	.17	.37	.01	3.12***	9.75***
Domestic brand	12,176	.20	.40			
Foreign brand	20,708	.15	.36	.05	11.67***	135.69***
CSI event-related news selection variables						
Domestic CSI event	11,547	.25	.43			
Foreign CSI event	21,337	.13	.34	.12	28.09***	770.46***
Evidence-based CSI event	14,043	.21	.40			
Rumor-based CSI event	18,841	.15	.36	.06	13.37***	177.72***
Other brand news	15,961	.15	.36			
No other brand news	16,923	.20	.40	.05	504.49***	123.86***
Media-outlet-related news selection variables						
Frequency: Weekly offline	5,343	.04	.20			
Daily online	11,794	.20	.40	.15	26.58***	678.54***
Daily offline	15,747	.20	.40	.15	26.93***	701.37***
Political orientation: Left	14,256	.20	.40			
Right	18,628	.15	.40	.04	10.10***	104.42***
Advertising relationship with outlet (high)	2,888	.25	.43	-	-	-
Advertising relationship with outlet (low)	13,550	.16	.37	.09	10.87***	117.23***
Selective advertising partnership	191	.13	.34	-	-	-
No selective advertising partnership	16,247	.18	.38	.05	2.16**	3.60**

Notes: For metric variables (e.g., brand salience), we built two groups that include observations with values above (high) and below (low) the sample mean. From the observed media-outlet decisions to report on a CSI event or not (relative frequencies), we estimate the mean reporting likelihood and its standard deviation, which is the basis for the t-test. Hence, we treat the reporting likelihood as metric variable here, but caution that it does not represent the true data generating process in its strict sense. The χ^2-test is based on observed and expected group frequencies. It treats the groups of reporting and no-reporting media outlets as categorical variables.
*** $p < .01$, ** $p < .05$.

Appendix 7: Exogeneity Tests and IV Estimation

Exogeneity of advertising expenditures. In the paper, we argue that advertising expenditures are not likely to be determined by the CSI event. Unlike for product recalls, there is no obligation and thus incentive for the involved firm to announce a CSI event, which might impact advertising decisions before the event is reported in the media (e.g., Rubel, Naik, and Srinivasan 2011). Under the assumption of exogeneity of advertising expenditures, the CSI event should not Granger-cause advertising expenditures, which we can test for. The results of these tests are shown in Table A.7.1 for one-period and two-period lagged predictors and different temporal aggregations (week and month). The coefficients associated with the lagged CSI event variables are not significant, which support the exogeneity assumption for advertising expenditures.

IV estimation. We consider the variable 'other brand news' as confounding event or potentially endogenous variable, respectively. The first two columns of Table A.7.2 show the results for samples where all cases with (confounding) other brand news are removed. Results are consistent. The next four columns show results based on the original samples. Here, we account for the possible endogeneity of other brand news via IV estimation (for a similar procedure, see Eisensee and Strömberg 2007). Columns 3 and 4 of Table A.7.2 show ML results of a model where both first stage and second stage are logit. Since our focal model is non-linear in parameters we adopt the control function method (Wooldridge 2015) and add the residuals of the first stage to the second stage. Columns 5 and 6 show results of an alternative IV estimation of a bivariate probit model with an endogenous binary variable (other brand news). Both sets of results support our focal model estimation results.

We report test statistics on the strength and validity of instruments in Table A.7.2. Specifically, we consider the periods of Winter and Summer sales as exogenous instrument because this may generate news about promotional activities and sales performance of brands. In addition, global sports events such as the Olympics and the football World Cup often result into news about new sponsorships or new product introductions that are announced around these events. The event itself may crowd out other sports news, but this usually affects the sports section of the outlet, not the business section where CSI events are reported. These instruments turn out to be strong according to the incremental F-statistic (Angrist and Pischke 2009) and valid according to the overidentification Sargan/Hansen-J-test (Wooldridge 2016) (see A.7.2). The Hausman-Wu test (Wooldridge 2015), however, does not support the assumption that 'other brand news' is endogenous (see third and fourth column of A.7.2, the insignificant coefficient estimate for the residuals of the predition equation).

Table A.7.1
Granger-Causality Test: Exogeneity of Advertising Expenditures

Panel A: one-period lag	Weekly aggregation		Monthly aggregation		Monthly aggregation	
Dependent variable:	Total advertising spending		Total advertising spending		Advertising spending in focal outlet	
	Estimated coefficient	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**
Constant	32.619**	(.997)	146.057**	(8.112)	7.841***	(.206)
Advertising expenditures (t-1)	.895**	(.001)	.884**	(.002)	.725***	(.002)
CSI event dummy (t-1)	-8.675	(10.520)	63.327	(45.186)	.865	(.718)
Adj. R^2	.801		.779		.518	
N	157,687		38,070		163,084	

Notes: * $p < .05$, ** $p < .01$ (two-sided); Advertising expenditures in thousand EUR. Sample size differs between total advertising and advertising in focal outlet (advertising relationship) as we investigate advertising relationship at the outlet level and total advertising at the aggregate brand level across all outlets.

Panel B: two-period lag	Weekly aggregation		Monthly aggregation		Monthly aggregation	
Dependent variable:	Total advertising spending		Total advertising spending		Advertising spending in focal outlet	
	Estimated coefficient	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**
Constant	25.841**	(.989)	116.267**	(8.281)	5.645**	(.204)
Advertising expenditures (t-1)	.718**	(.002)	.740**	(.005)	.533**	(.002)
Advertising expenditures (t-2)	.198**	(.002)	.159**	(.005)	.269**	(.002)
CSI event dummy (t-1)	-7.009	(10.372)	45.919	(45.896)	.555	(.710)
CSI event dummy (t-2)	-14.674	(10.380)	84.963	(46.119)	1.382	(.711)
Adj. R^2	.813		.786		.553	
N	157,687		38,070		163,084	

Notes: * $p < .05$, ** $p < .01$ (two-sided); Advertising expenditures in thousand EUR. Sample size differs between total advertising and advertising in focal outlet (advertising relationship) as we investigate advertising relationship at the outlet level and total advertising at the aggregate brand level across all outlets.

Table A.7.2

Treating 'Other Brand News' As Confounding Event and Endogenous Variables

DV: Media outlet reports on a CSI event (yes / no)		CSI events with 'other brand news' eliminated				IV estimation: control function approach				IV estimation: bivariate probit model			
		Sample I (US, FR, GER, MX, UK)		Sample II (FR, GER, UK)		Sample I (US, FR, GER, MX, UK)		Sample II (FR, GER, UK)		Sample I (US, FR, GER, MX, UK)		Sample II (FR, GER, UK)	
	Scale	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)
Intercept		-3.64707	.11937	-4.26521	.18650	-3.38813	.08686	-4.00620	.13817	-2.35301	.06873	-1.96000	.09835
Standard deviation of intercept		.20756	.02310	.48553	.03662	.10860	.01658	.35568	.02526	.52164	.01035	.44394	.01667
Residuals of prediction equation[a]		-	-	-	-	.06660 N.S.	.03624	.04862 N.S.	.05847	-	-	-	-
Brand-related news selection variables													
Brand salience	[-100 – 100]	.01220	.00140	.01104	.00260	.01242	.00126	.01612	.00216	.00722	.00144	.01848	.00093
Brand power	[0 – 100]	.01158	.00172	.01812	.00296	.00740	.00123	.00447	.00184	.00535	.00075	.00195	.00089
Brand presence: Total advertising	[continuous]	-	-	.00001	$.5x10^{-5}$	-	-	.00001	$.3x10^{-5}$	-	-	$.3x10^{-5}$	$.1x10^{-5}$
Brand presence: Online interest	[continuous]	.00009 N.S.	.00002	.00006 N.S.	.00005	.00006	.00001	.00005	.00002	.00005	.00001	.00018	.00001
Negative word of mouth	[-100 – 100]	.02331	.00243	.03282	.00454	.01146	.00154	.00708	.00246	.00852	.00098	.00169	.00122
Foreign brand	[dummy]	-.49973	.05195	-.31749	.08863	-.46372	.03538	-.19894	.06232	-.33293	.02353	-.22920	.03029
Brand CSI history	[continuous]	.15515	.01257	.16480	.01898	.06063	.00737	.06620	.01127	.06760	.00472	.03997	.00557
CSI event-related news selection variables													
Domestic CSI event	[dummy]	.69891	.05329	113.488	.10041	.67670	.03659	.80295	.06810	.40474	.02313	.36986	.03474
Foreign brand involved in domestic CSI event	[dummy]	.61250	.06839	.32598	.11689	.51579	.04782	.34384	.08068	.38337	.03205	.23656	.04106
Evidence-based CSI event	[dummy]	.40890	.03308	.42835	.05236	.37125	.02431	.27497	.03547	.25621	.01448	.18022	.01774
Other brand news	[dummy]	-	-	-	-	-.42672	.04231	-.37929	.06597	-.40012	.19293	-1.47720	.05568
Media-outlet-related News Selection Variables													
Frequency: Weekly offline (base)	[dummy]	-	-	-	-	-	-	-	-	-	-	-	-
Daily online	[dummy]	1.54497	.07149	1.94933	.10531	1.50600	.05204	1.91984	.07948	1.05574	.03610	1.03983	.05112
Daily offline	[dummy]	1.65212	.07434	1.78847	.11433	1.52558	.05272	1.64421	.08136	1.07468	.03608	.88546	.04981
Political orientation	[-2=left – 2= right]	.00273 N.S.	.01134	-.01395 N.S.	.01622	.00949 N.S.	.00805	-.01405 N.S.	.01120	.00493 N.S.	.00639	-.00945 N.S.	.00704
Advertising relationship with media outlet	[continuous]	-	-	.00011 N.S.	.00013	-	-	.00005 N.S.	.00006	-	-	.00001 N.S.	.00004
Selective advertising partnership	[continuous]	-	-	-.04641	.02571	-	-	-.01526	.00574	-	-	-.00841	.00354
Control variables													
CSI event type: Governance issues (*base*)		-	-	-	-	-	-	-	-	-	-	-	-
Social issues	[dummy]	-.23130	.03737	-.22489	.05918	-.22424	.02531	-.29601	.03746	-.18935	.01605	-.18233	.02027
Environmental issues	[dummy]	-.21836	.06459	-.45813	.11123	-.06671 N.S.	.04477	-.29345	.07457	-.10431	.02526	-.14706	.03482
Product type: Services (*base*)		-	-	-	-	-	-	-	-	-	-	-	-
Durables	[dummy]	.12927	.05243	.12924 N.S.	.07946	.06134 N.S.	.03730	.00719 N.S.	.05207	.08166	.03480	.22538	.02481
Non-Durables	[dummy]	-.46455	.07975	-.31186	.13310	-.41313	.07023	-.55058	.11404	-.20343	.06422	-.58865	.05972
Retailer	[dummy]	.17373	.04952	.26634	.07845	-.07633	.03487	-.07373 N.S.	.05492	.02107 N.S.	.02147	-.09631	.02757
Country of outlet: United Kingdom *(base)*		-	-	-	-	-	-	-	-	-	-	-	-
Germany	[dummy]	.41750	.04531	.44967	.05997	.45449	.02878	.40726	.03977	.32492	.01866	.26858	.02176
USA	[dummy]	-.59369	.04966	-	-	-.63719	.03482	-	-	-.36072	.02197	-	-
France	[dummy]	-.21260	.05328	-.12720 N.S.	.08705	-.06046 N.S.	.03237	.03226 N.S.	.05374	-.04867	.02248	.02754 N.S.	.02793
Mexico	[dummy]	.09926 N.S.	.08028	-	-	-.26337	.05681	-	-	-.13929	.03664	-	-
Time	[continuous]	.00084	.00029	.00050 N.S.	.00040	.00080	.00021	.00076	.00028	.00046	.00016	.00025 N.S.	.00017
Random effects													
Standard deviation of media-outlet-specific error term		.21881	.01645	.30167	.02519	.11905	.01165	.29417	.01758	-	-	-	-
Standard deviation of brand-specific error term		.87777	.01987	.97250	.03270	.82375	.01421	.93929	.02214	-	-	-	-
		log likelihood = - 6,658		**log likelihood** = -3,063		**log likelihood** = -12,553		**log likelihood** = -6,280		**log likelihood** = -33,961		**log likelihood** = -16,771	

1st stage regression based on the following outside instruments: Periods of winter and summer sales and global sports events.

Incremental F-statistic (for IV analysis): 27.13 (Sample I), 34.86 (Sample II), **Over-identification restrictions, χ^2_{df} :** $1.15_1^{N.S.}$ (Sample I)[b], $3.28_1^{N.S.}$ (Sample II)

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$); [a] Residuals based on logit model; [b] N = 16,438 that are randomly drawn from 32,884 total observations. Sample sizes I and II are identical for comparison.

Appendix 8: Estimation Results for Model by Country

Table A8.1

Estimation Results for Model (5) by Country

DV: Media outlet reports on a CSI event (yes / no)		Scale	USA		MEXICO		GERMANY		UNITED KINGDOM		FRANCE	
			Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)	Estimated coefficient	(SE)
Intercept			-3.06569	(.16040)	-2.43664	(.63311)	-3.65779	(.23061)	-4.33863	(.21810)	-3.02116	(.68361)
Standard deviation of intercept			.06671 N.S.	(.03454)	1.14325	(.07600)	1.41671	(.05669)	1.12358	(.04280)	.22095	(.05788)
Brand-related news selection variables												
Brand salience		[-100 – 100]	.00409	(.00235)	.00302 N.S.	(.00455)	.01557	(.00421)	.00985	(.00262)	-.00092 N.S.	(.00598)
Brand power		[0 – 100]	.00293 N.S.	(.00346)	-.00122 N.S.	(.00445)	.01523	(.00441)	.00852	(.00248)	.03061	(.00728)
Brand presence: Total advertising		[continuous]	-	-	-	-	.00003	(.00001)	-.00001 N.S.	(.00001)	.00002	(.00001)
Brand presence: Online interest		[continuous]	.00011	(.00003)	.00006 N.S.	(.00034)	.00014	(.00004)	.00012	(.00004)	.00022	(.00007)
Negative word of mouth		[-100 – 100]	.00431 N.S.	(.00409)	.00739 N.S.	(.00564)	.02848	(.00606)	.00525 N.S.	(.00333)	.02670	(.00895)
Foreign brand		[dummy]	-.23815	(.10172)	-1.42808	(.50180)	-.68575	(.12054)	.17201 N.S.	(.12274)	-.86997	(.20934)
Brand CSI history		[continuous]	.16878	(.01752)	.05649 N.S.	(.04219)	.16013	(.02261)	.00741 N.S.	(.01871)	.09021	(.02650)
CSI event-related news selection variables												
Domestic CSI event		[dummy]	.83979	(.06483)	-.12269 N.S.	(.53769)	1.54585	(.13458)	1.13045	(.12355)	-.32346 N.S.	(.19172)
Foreign brand involved in domestic CSI event		[dummy]	.34350	(.12396)	1.47192	(.53549)	-.28729 N.S.	(.16313)	-.04546 N.S.	(.14010)	.81332	(.23816)
Evidence-based CSI event		[dummy]	.42611	(.05205)	.54761	(.09542)	.69341	(.06937)	.21255	(.05285)	.25566	(.08612)
Other brand news		[dummy]	-.41119	(.05681)	-.44437	(.10746)	-.35838	(.07125)	-.34451	(.05776)	-.13274 N.S.	(.09684)
Media-outlet-related news selection variables												
Frequency:	Weekly offline (base)	[dummy]	-	-	-	-	-	-	-	-	-	-
	Daily online	[dummy]	.43037	(.10522)	-	-	1.60935	(.10274)	2.15308	(.14364)	3.04227	(.42122)
	Daily offline	[dummy]	.92219	(.09924)	.60263	(.08590)	2.04554	(.10690)	1.54973	(.14274)	2.49054	(.42479)
Political orientation		[-2=left – 2= right]	-.00413 N.S.	(.02096)	-.04266 N.S.	(.05431)	-.02614 N.S.	(.02153)	.00228 N.S.	(.01362)	-.00069 N.S.	(.03435)
Advertising relationship with media outlet		[continuous]	-	-	-	-	-.00041	(.00018)	.00009 N.S.	(.00005)	.00002 N.S.	(.00044)
Selective advertising partnership		[continuous]	-	-	-	-	-.01086	(.00588)	-.02553 N.S.	(.04051)	-.46129 N.S.	(2.0894)
Control variables												
CSI event type	Governance issues (*base*)		-	-	-	-	-	-	-	-	-	-
	Social issues	[dummy]	-.12901	(.06153)	-.36773	(.10944)	-.41460	(.07360)	-.18815	(.05694)	-.41629	(.09301)
	Environmental issues	[dummy]	-.10078 N.S.	(.09526)	-.84677	(.25423)	-.07670 N.S.	(.11838)	-.28116	(.13861)	.07201 N.S.	(.17105)
Product type:	Services (*base*)		-	-			-	-	-	-	-	-
	Durables	[dummy]	.08548 N.S.	(.07170)	-.01042 N.S.	(.14857)	-.25990	(.09170)	.13977 N.S.	(.07828)	.04755 N.S.	(.11241)
	Non-Durables	[dummy]	-.42879	(.17469)	-.39723	(.17581)	-.93142	(.20186)	-.72979	(.18124)	.15513 N.S.	(.49602)
	Retailer	[dummy]	-.22305	(.08824)	.12867 N.S.	(.15925)	.18641 N.S.	(.10112)	-.05587 N.S.	(.08718)	-.90737	(.19911)
Time		[continuous]	.00050 N.S.	(.00047)	.00710	(.00127)	-.00061 N.S.	(.00052)	.00196	(.00043)	-.00259 N.S.	(.00189)
Error components												
Standard deviation of media-specific error component			.12996	(.02437)	.01067 N.S.	(.04336)	.19003	(.03101)	.14041	(.02507)	.35136	(.04195)
Standard deviation of brand-specific error component			.60756	(.02774)	.45233	(.04692)	.66080	(.03560)	.13617	(.02485)	.63763	(.04608)
			log likelihood = -2,971		**log likelihood = -1,061**		**log likelihood = -1,996**		**log likelihood = -2,923**		**log likelihood = -1,098**	
			N (CSI) = 530		**N (CSI) = 212**		**N (CSI) = 413**		**N (CSI) = 528**		**N (CSI) = 228**	
			N (outlets) = 15		**N (outlets) = 13**		**N (outlets) = 14**		**N (outlets) = 15**		**N (outlets) = 12**	

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$).

Appendix 9: Robustness Checks

We performed several additional analyses to check whether our estimation results are robust. Table A.9.1 gives a detailed overview about the results of our robustness checks.

(1) We tested for additional interaction effects.

(2) We substituted a count variable of the number of media reports for our dependent variable and estimated a linear regression model, a Poisson model, and a zero-inflated Poisson model. We also included fixed effects for brand and outlet instead of these respective error components.

(3) We considered various alternative operationalizations for variables brand salience, brand power, advertising stock, selective advertising partnership, and brand CSI history.

(4) We added new variables. Specifically, we added brand power dispersion (Luo, Raithel, and Wiles 2013), square of brand power, a dummy for business newspapers as outlet (e.g., Financial Times), and several financial variables for listed companies from Compustat.

(5) Finally, we performed three specific analyses to check for the robustness of our sampling strategy for CSI events. We are only aware of the CSI events which are published in the 77 selected media outlets.

First, we deleted the 75 least powerful brands based on their brand power rating in our dataset and run an additional analysis (= 23% of the whole sample). We thereby simulate to what extent our results differ from a broader sample that includes less well-known and strong brands (see Table A.9.4, first column). Results are consistent with our focal model results.

Second, we randomly delete one outlet that reported on a CSI event for each event and re-estimate our model. For most identified CSI events, we do not know when and where the information about the event was first originated. This procedure simulates that the information about the event has been uncovered by an exogenous source and not by an outlet included for model estimation. Results are stable (see Table A.9.4, second column).

Third, through analyzing brands in the media in more than one country, we effectively uncover events that were *not* reported at all in a specific country. Our findings still hold when we restrict the sample to include only those brands that are covered by YouGov in more than one country (see Table A.9.4, third column).

Table A9.1
Overview of Robustness Checks

Robustness checks	Explanation	Sample	Results	Table Ap.No
(1) Interaction effects				
Interaction between focal variables	We test for possible interaction effects among the focal variables. Since the number of interaction variables is large we follow the procedure in Edeling and Fischer (2016) to identify testable interactions.	Full sample (US, F, GER, MX, UK)	No significant interaction effects	9.2
(2) Alternative model specifications				
Count variable as dependent variable	We substitute a count variable of the number of media reports for our dependent variable.	Full sample (US, F, GER, MX, UK)	Results are consistent	9.2
Including fixed effects for brand and media outlet	We run models including fixed effects for brand and media outlet.	Full sample (US, F, GER, MX, UK)	Results are consistent	9.2
(3) Alternative operationalization of news selection variables				
Brand power, brand salience, brand CSI history	We choose different time windows to compute the variables: 14 days brand power and salience, one year for a brand's CSI history and no decay.	Full sample (US, F, GER, MX, UK)	Results are consistent	9.3
Advertising relationship with media outlet	Advertising stock is based on advertising expenditures in the outlet for the last 12 months before the CSI event occurred.	Sub sample (F, GER, UK)	Results are consistent	9.3
Selective advertising partnership	Advertising stock in focal outlet relative to total advertising stock across all outlets used by focal brand.	Sub sample (F, GER, UK)	Results are consistent	9.3
(4) Adding new variables				
Brand dispersion	Brand dispersion is a variance-based measure and describes the heterogeneity in consumer brand ratings (Luo, Raithel, and Wiles 2013).	Full sample (US, F, GER, MX, UK)	LL-ratio test is not sign. $\chi 2$ –value: 1.05, $p = .30$	/
Square of brand power	Adding square of brand power allows estimating asymmetric effects for extreme positive or negative brand power ratings.	Full sample (US, F, GER, MX, UK)	LL-ratio test is not sign. $\chi 2$ –value: 1.87, $p = .17$	/
Dummy for business newspaper outlet	Business outlets may be more likely to cover corporate events.	Full sample (US, F, GER, MX, UK)	LL-ratio test is not sign. $\chi 2$ –value: 1.48, $p = .22$	/
Sales	We include sales as an additional variable to capture differences in firm/brand size.	Sub-sample (Compustat)	LL-ratio test is not sign. $\chi 2$ –value: 0.22, $p = .64$	/
Return on assets	We include return on assets as an additional variable to capture differences in firm / brand size.	Sub-sample (Compustat)	LL-ratio test is not sign. $\chi 2$ –value: 2.02, $p = .16$	/
(5) Robustness of sampling strategy				
Removing 75 weakest brands from sample	75 weakest brands (measured by brand power rating) are removed from sample.	Sub sample (strongest brands)	Results are consistent	9.4
Simulation study (exogenous CSI event)	For every CSI event, we randomly deleted one media outlet that reported on the CSI event.	Full sample (US, F, GER, MX, UK)	Results are consistent	9.4
Analysis of international brands only	We only analyze brands that are covered by YouGov in more than one country.	Sub sample (itnernational brands)	Results are consistent	9.4

Notes: Appendix (Ap.), log likelihood (LL).

Table A9.2

Robustness Checks: Alternative Model Specifications

			Interaction effects of focal variables[1] DV: Media outlet reports on a CSI event (yes/no)				**Different dependent variables** DV: Count variable – number of reporting outlets				**Fixed effects models** DV: Media outlet reports on a CSI event (yes/no)			
Sample: US, FR, GER, MX, UK			Interaction of brand power with online interest		Interaction of brand power with political orientation		Linear model		Zero-inflated Poisson model		Brand-specific FE		Media-outlet-specific FE	
		Scale	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**
Intercept			-3.3529	(.08532)	-3.35556	(.08587)	1.38396	(.36172)	.22037	(.08268)	-	-	-	-
Standard deviation of intercept			.10357	(.01657)	.11035	(.01656)	.38091	(.05590)	.33615	(.01378)	-	-	-	-
Brand-related news selection variables														
Brand salience		[-100 – 100]	.01128	(.00106)	.01128	(.00106)	.02333	(.00580)	.00843	(.00126)	.01268	(.00166)	.01289	(.00157)
Brand power		[0 – 100]	.00768	(.00129)	.00738	(.00123)	.01972	(.00646)	.00700	(.00146)	.00936	(.00185)	.00956	(.00174)
Brand presence: Total advertising		[continuous]	-	-	-	-	-	-	-	-	-	-	-	-
Brand presence: Online interest		[continuous]	.00006 N.S.	(.00001)	.00005	(.00001)	.00001	($.5x10^{-5}$)	.00001	(.00001)	.00007	(.00002)	.00008	(.00002)
Interaction: Online interest x brand power		[continuous]	$-.5x10^{-6}$ N.S.	($.6x10^{-6}$)		-	-	-	-	-	-	-	-	-
Negative word of mouth		[-100 – 100]	.01141	(.00154)	.01129	(.00153)	.02992	(.00834)	.00988	(.00185)	.01447	(.00240)	.01506	(.00224)
Foreign brand[1]		[dummy]	-.46892	(.03516)	-.46770	(.03514)	-.98307	(.17666)	-.43382	(.04446)	-.57419	(.05856)	-.56011	(.05572)
Brand CSI history		[continuous]	.05995	(.00733)	.05918	(.00733)	.23318	(.03906)	.10053	(.00909)	.13168	(.01155)	.12496	(.01084)
CSI event-related news selection variables					-	-	-	-	-	-	-	-	-	-
Domestic CSI event		[dummy]	.67540	(.03656)	.67493	(.03656)	1.38947	(.18548)	.48677	(.04409)	.76594	(.05782)	.69541	(.05541)
Foreign brand involved in domestic CSI event		[dummy]	.51664	(.04790)	.51708	(.04782)	1.30537	(.25700)	.48317	(.05793)	.60084	(.07588)	.62224	(.07199)
Evidence-based CSI event		[dummy]	.37237	(.02430)	.37311	(.02428)	.78243	(.12484)	.33313	(.02789)	.50767	(.03462)	.43998	(.03272)
Other brand news		[dummy]	-.36483	(.02400)	-.36188	(.02400)	-1.12758	(.13497)	-.41493	(.03025)	-.64318	(.03780)	-.60633	(.03591)
Media-outlet-related News Selection Variables														
Frequency:	Weekly offline (base)	[dummy]	-	-	-	-	-	-	-	-	-	-	-	-
	Daily online	[dummy]	1.50559	(.05188)	1.50540	(.05224)	-	-	-	-	1.40117	(.40251)	-	-
	Daily offline	[dummy]	1.52500	(.05263)	1.52532	(.05316)	-	-	-	-	2.29718	(.41558)	-	-
Political orientation		[-2=left – 2= right]	.00950 N.S.	(.00804)	.01560 N.S.	(.01061)	-	-	-	-	-.05220	(.07030)	-	-
Interaction: Political orientation **x** brand power		[continuous]	-	-	-.00032 N.S.	(.00037)	-	-	-	-	-	-	-	-
Advertising relationship with media outlet		[continuous]	-	-	-	-	-	-	-	-	-	-	-	-
Selective advertising partnership		[continuous]	-	-	-	-	-	-	-	-	-	-	-	-
Control variables														
CSI event type	Governance issues (*base*)		-	-	-	-	-	-	-	-	-	-	-	-
	Social issues	[dummy]	-.22705	(.02535)	-.22577	(.02528)	-.64645	(.13407)	-.22425	(.02998)	-	-	-.35775	(.03573)
	Environmental issues	[dummy]	-.06038 N.S.	(.04464)	-.06236 N.S.	(.04459)	-.26682 N.S.	(.22979)	-.09200 N.S.	(.05341)	-	-	-.13812	(.06262)
Product type:	Services (*base*)		-	-	-	-	-	-	-	-	-	-	-	-
	Durables	[dummy]	.02802 N.S.	(.03377)	.02931 N.S.	(.03369)	.04089	(.17452)	.01574 N.S.	(.04107)	-.01635 N.S.	(.04994)	.01993 N.S.	(.04791)
	Non-Durables	[dummy]	-.39489	(.06939)	-.39182	(.06925)	-.99068	(.36650)	-.48606	(.08117)	-.58623	(.10108)	-.56185	(.09664)
	Retailer	[dummy]	-.07500	(.03468)	-.07459	(.03466)	-.15102 N.S.	(.18562)	-.11108	(.04147)	-.18587	(.05078)	-.08111 N.S.	(.04882)
Country of outlet	United Kingdom *(base)*						-	-	-	-	-	-		
	Germany	[dummy]	.44603	(.02976)	.45163	(.02872)	.85159	(.15978)	.30559	(.03983)	-.27305 N.S.	(.38131)	-	-
	USA	[dummy]	-.64170	(.03503)	-.63895	(.03471)	-1.22523	(.20473)	-.49769	(.04544)	-2.24597	(.45706)	-	-
	France	[dummy]	-.06982	(.03304)	-.06553	(.03229)	.19303 N.S.	(.18336)	.07105 N.S.	(.04314)	-1.79705	(.44157)	-	-
	Mexico	[dummy]	-.27132	(.05712)	-.26527	(.05668)	-.46983 N.S.	(.29952)	-.23783	(.07076)	.47008 N.S.	(.51500)	-	-
Time		[continuous]	.00080	(.00021)	.00080	(.00021)	.00289	(.00103)	.00111	(.00025)	-	-	.00164	(.00030)
Random effects														
Standard deviation of media-specific error term			.11683	(.01165)	.11817	(.01166)	-	-	-	-	-	-	-	-
Standard deviation of brand-specific error term			.82389	(.01428)	.82331	(.01421)	.27209	(.05599)	.62348	(.01506)	-	-	-	-
			log likelihood = -12,554		**log likelihood = 12,554**		**log likelihood = -5,040**		**log likelihood = -4,344**		**log likelihood = -11,548**		**log likelihood = -12,373**	

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$). [1]We tested several further interaction effects. Similarly to Edeling and Fischer (2016) we require that the variance inflation factor must not exceed 10 to avoid multicollinearity issues. Second, joined categories must show at least 5% of total observations. Last, the explanatory power of the model according to a likelihood ratio test must be significant on 5% level. We do not find further interaction effects.

Table A9.3

Robustness Checks: Alternative Variable Operationalizations

DV: Media outlet reports on a CSI event (yes / no)			**Brand salience** (14 days mean)		**Brand power** (14 days mean)		**Brand CSI history** (1 year history without decay)		**Adv. relationship** (# of months in which brand has advertised in the focal outlet in the preceding year)		**Select. Adv. partnership** (adv spend in focal outlet relative to total adv spend across all outlets)	
Sample:			US, FR, GER, MX, UK		US, FR, GER, MX, UK		US, FR, GER, MX, UK		FR, GER, UK		FR, GER, UK	
		Scale	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**
Intercept			-3.33967	(.08508)	-3.35069	(.08529)	-3.34622	(.08572)	-4.20009	(.13958)	-4.00586	(.13627)
Standard deviation of intercept			.11651	(.01654)	.11310	(.01656)	.08516	(.01660)	.34116	(.02524)	.34579	(.02525)
Brand-related news selection variables												
Brand salience		[-100 – 100]	.01061	(.00106)	.01148	(.00105)	.01135	(.00106)	.01434	(.00184)	.01510	(.00183)
Brand power		[0 – 100]	.00763	(.00122)	.00653	(.00119)	.00737	(.00122)	.00267 N.S.	(.00183)	.00435	(.00183)
Brand presence: Total advertising		[continuous]	-	-	-	-	-	-	$.5x10^{-6}$ N.S.	($.3x10^{-5}$)	$.5x10^{-5}$ N.S.	($.3x10^{-5}$)
Brand presence: Online interest		[continuous]	.00005 N.S.	(.00001)	.00005 N.S.	(.00001)	.00005	(.00001)	.00007	(.00002)	.00005 N.S.	(.00002)
Negative word of mouth		[-100 – 100]	.01145	(.00153)	.01056	(.00151)	.01146	(.00153)	.00473	(.00242)	.00676	(.00243)
Foreign brand[1]		[dummy]	-.47309	(.03506)	-.46683	(.03508)	-.46405	(.03508)	-.09789 N.S.	(.06337)	-.18233	(.06243)
Brand CSI history		[continuous]	.06050	(.00731)	.06030	(.00731)	.03302	(.00423)	.07228	(.01127)	.06538	(.01124)
CSI event-related news selection variables												
Domestic CSI event		[dummy]	.67590	(.03647)	.67527	(.03652)	.67253	(.03654)	.82125	(.06841)	.79812	(.06791)
Foreign brand involved in domestic CSI event		[dummy]	.51720	(.04778)	.51721	(.04780)	.51468	(.04785)	.34098	(.08070)	.35121	(.08046)
Evidence-based CSI event		[dummy]	.37463	(.02425)	.37358	(.02431)	.37207	(.02429)	.28385	(.03547)	.27578	(.03551)
Other brand news		[dummy]	-.36077	(.02394)	-.36232	(.02397)	-.36065	(.02398)	-.35849	(.03603)	-.33379	(.03590)
Media-outlet-related News Selection Variables												
Frequency:	Weekly offline (base)	[dummy]	-	-	-	-	-	-	-	-	-	-
	Daily online	[dummy]	1.50558	(.05186)	1.50484	(.05185)	1.50549	(.05191)	2.13778	(.09786)	1.91676	(.07968)
	Daily offline	[dummy]	1.52500	(.05259)	1.52439	(.05258)	1.52485	(.05266)	1.87385	(.07960)	1.64186	(.08144)
Political orientation		[-2=left – 2= right]	.00951 N.S.	(.00804)	.00946 N.S.	(.00804)	.00952 N.S.	(.00804)	-.01914 N.S.	(.01083)	-.01674 N.S.	(.01122)
Advertising relationship		[continuous]	-	-	-	-	-	-	.04659	(.00464)	.00042	(.00013)
Selective advertising partnership		[continuous]	-	-	-	-	-	-	-.11462	(.04367)	-.00075	(.00027)
Control variables												
CSI event type	Governance issues (*base*)		-	-	-	-	-	-	-	-	-	-
	Social issues	[dummy]	-.22308	(.02525)	-.22474	(.02527)	-.23200	(.02531)	-.26443	(.03717)	-.29463	(.03727)
	Environmental issues	[dummy]	-.06178 N.S.	(.04453)	-.06269 N.S.	(.04454)	-.06214 N.S.	(.04441)	-.25317	(.07506)	-.29693	(.07465)
Product type:	Services (*base*)		-	-	-	-	-	-	-	-	-	-
	Durables	[dummy]	.02769 N.S.	(.03363)	.03212 N.S.	(.03371)	.02692 N.S.	(.03377)	.01275 N.S.	(.04941)	-.01087 N.S.	(.04929)
	Non-Durables	[dummy]	-.38968	(.06934)	-.38574	(.06929)	-.40090	(.06912)	-.37345	(.11431)	-.51147	(.11274)
	Retailer	[dummy]	-.07261	(.03461)	-.07605	(.03463)	-.06373	(.03463)	-.04500 N.S.	(.05423)	-.08495 N.S.	(.05401)
Country of outlet	United Kingdom *(base)*		-	-	-	-	-	-	-	-	-	-
	Germany	[dummy]	.45387	(.02870)	.44770	(.02866)	.45010	(.02870)	.49498	(.04125)	.41763	(.03997)
	USA	[dummy]	-.63415	(.03466)	-.64399	(.03467)	-.63980	(.03473)	-	-	-	-
	France	[dummy]	-.06773	(.03220)	-.07325	(.03218)	-.05058 N.S.	(.03238)	.11681	(.05428)	.04785 N.S.	(.05406)
	Mexico	[dummy]	-.24952	(.05602)	-.27837	(.05696)	-.26113	(.05675)	-	-	-	-
Time		[continuous]	.00082	(.00021)	.00079	(.00021)	.00075	(.00021)	.00080	(.00028)	.00077	(.00028)
Random effects												
Standard deviation of media-specific error term			.12267	(.01166)	.11151	(.01164)	.12158	(.01166)	.26267	(.01747)	.29902	(.01761)
Standard deviation of brand-specific error term			.82304	(.01419)	.82333	(.01422)	.82592	(.01420)	.94495	(.02226)	.94497	(.02219)
			log likelihood = -12,555		**log likelihood** = -12,555		**log likelihood** = -12,555		**log likelihood** = -6,255		**log likelihood** = -6,282	

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$).

Table A9.4
Robustness Checks: Alternative Sample Compositions

DV: Media outlet reports on a CSI event (yes / no)			**Deletion of weakest 75 brands based on brand power**		**Random deletion of 1 reporting outlet per event**		**Inclusion of brands covered in more than 1 country**	
Sample:			US, F, GER, MX, UK		US, F, GER, MX, UK		US, F, GER, MX, UK	
		Scale	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**	**Estimated coefficient**	**(SE)**
Intercept			-3.34239	(.10302)	-4.06254	(.09402)	-3.75948	(.11375)
Standard deviation of intercept			.34930	(.01914)	.46329	(.01925)	.45443	(.02080)
Brand-related news selection variables								
Brand salience		[-100 – 100]	.01112	(.00144)	.01663	(.00117)	.01020	(.00152)
Brand power		[0 – 100]	.00382	(.00155)	.00940	(.00135)	.00808	(.00161)
Brand presence: Total advertising		[continuous]	-	-	-	-	-	-
Brand presence: Online interest		[continuous]	.00004	(.00001)	.00001 N.S.	(.00001)	.00006	(.00001)
Negative word of mouth		[-100 – 100]	.00660	(.00185)	.01284	(.00167)	.01110	(.00197)
Foreign brand[1]		[dummy]	-.40005	(.04447)	-.47369	(.03755)	-.56030	(.04056)
Brand CSI history		[continuous]	.08978	(.00812)	.08195	(.00811)	.07512	(.00830)
CSI event-related news selection variables								
Domestic CSI event		[dummy]	.65882	(.04316)	.63522	(.03985)	1.07809	(.05071)
Foreign brand involved in domestic CSI event		[dummy]	.58007	(.05592)	.67446	(.05141)	.29160	(.06071)
Evidence-based CSI event		[dummy]	.34578	(.02723)	.51559	(.02650)	.46593	(.02974)
Other brand news		[dummy]	-.35122	(.02850)	-.48193	(.02700)	-.24875	(.02776)
Media-outlet-related News Selection Variables								
Frequency:	Weekly offline (base)	[dummy]	-	-	-	-	-	-
	Daily online	[dummy]	153.251	(.05692)	1.56956	(.05771)	1.57774	(.06299)
	Daily offline	[dummy]	151.309	(.05785)	1.57663	(.05859)	1.50589	(.06479)
Political orientation		[-2=left – 2= right]	.00930 N.S.	(.00922)	.01101 N.S.	(.00890)	.00457 N.S.	(.00984)
Advertising relationship		[continuous]	-	-	-	-	-	-
Selective advertising partnership		[continuous]	-	-	-	-	-	-
Control variables								
CSI event type	Governance issues (*base*)		-	-	-	-	-	-
	Social issues	[dummy]	-.16869	(.02774)	-.25367	(.02799)	-.17952	(.02963)
	Environmental issues	[dummy]	-.09418 N.S.	(.06568)	-.14515	(.04985)	.09742 N.S.	(.05219)
Product type:	Services (*base*)		-	-	-	-	-	-
	Durables	[dummy]	.03733 N.S.	(.03592)	-.05758 N.S.	(.03791)	.10250	(.03744)
	Non-Durables	[dummy]	-.18376	(.06676)	-.60715	(.08127)	-.68700	(.10606)
	Retailer	[dummy]	-.05343 N.S.	(.03755)	-.10508	(.03874)	.11512	(.04793)
Country of outlet	United Kingdom *(base)*		-	-	-	-	-	-
	Germany	[dummy]	.35595	(.03228)	.53129	(.03173)	.35374	(.03218)
	USA	[dummy]	-.64435	(.04369)	-.70913	(.03915)	-.87994	(.04589)
	France	[dummy]	-.08343	(.04080)	-.02398 N.S.	(.03491)	-.02242 N.S.	(.03704)
	Mexico	[dummy]	-.35062	(.06139)	-.38310	(.05912)	-.39942	(.06618)
Time		[continuous]	.00040 N.S.	(.00024)	.00133	(.00024)	.00208	(.00029)
Random effects								
Standard deviation of media-specific error term			.14888	(.01332)	.04477	(.01284)	.17430	(.01432)
Standard deviation of brand-specific error term			.78461	(.01549)	1.01810	(.01718)	.84036	(.01782)
			log likelihood = -9,957		**log likelihood** = -10,510		**log likelihood** = -8,492	
			N (crises) = 790		**N (crises)** = 1,054		**N (crises)** = 510	
			N (obs) = 26,518		**N (obs) =** 31,830		**N (obs) =** 24,325	

Notes: One-sided t-test for directional hypotheses, two-sided t-test else; N.S. = not significant ($p > .05$).

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PAPER II:
THE IMPACT OF CORPORATE SOCIAL IRRESPONSIBILITY EVENTS ON CONSUMER AND SHAREHOLDER PERCEPTION: A COMPARISON OF FIVE COUNTRIES

Authors:

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ABSTRACT

Even though events of corporate social irresponsibility (CSI) appear in the news all over the world, the literature on cross-cultural differences of the effects is scarce. Using the methodology of an event study, this paper investigates the impact of CSI events on consumer perception metrics and stock markets in five countries. Examination of 536 CSI events that appeared in 77 leading media outlets from 2008 to 2014 shows that CSI events have a negative impact on brand strength in all analyzed countries. However, consumers from countries with strong patriotic values are more likely to criticize foreign brands than national brands. The results also show that consumer response is the essential determinant of the stock price drop.

Keywords: Corporate Social Irresponsibility, Consumer Perception, Stock Returns, Event Study, Crises

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1 Introduction

Around the globe, internal and external stakeholders put companies under pressure to enact social responsibility (Flammer 2013). As events of corporate social irresponsibility (CSI) are no longer tolerated, they are paid the highest levels of international media attention. Examples of CSI include the BP oil spill in the Gulf of Mexico (*Bild*, Germany 2010), child labor issues at Asos factories in Turkey (*BBC*, U.K. 2016), and the pollution scandal of Volkswagen (*CNN*, U.S. 2015). The cars involved in the Volkswagen pollution scandal were owned by consumers in more than 20 countries, and investors' reaction led to a 22% drop on the stock market overnight (Siano et al. 2017). Clearly, such CSI events are now global in nature and involve stakeholders that include investors from multiple countries.

In line with these real-world developments, the literature on corporate social responsibility (CSR) is extensive. As most of these studies concentrate on the positive consequences of CSR (e.g., McWilliams and Siegel 2000; Hawn, Chatterji, and Mitchell 2018), examination of the negative consequences of CSI is somewhat narrow (e.g., Groening and Kanuri 2013). The impact of CSI on consumer perceptions seems clear: Empirical studies show that CSI events have a negative impact on variables such as brand strength (Backhaus and Fischer 2016), consumer beliefs (Ahluwalia, Burnkrant, and Unnava 2000), brand attitudes (Pullig, Netemeyer, and Biswas 2006; Roehm and Tybout 2006), and brand considerations (Dutta and Pullig 2011). However, whether and how consumers from different parts of the world respond differently to CSI events has so far not been studied. This neglect is surprising, since many companies sell their products across national borders and CSI events are increasingly global. We expect country-specific differences for several reasons. *First*, consumers from different countries may react differently to CSI events owing to different cultural values (Cleeren, Dekimpe, and van Heerde 2017). For example, consumers from countries with strong traditional and patriotic values may want to protect their own country's

economy and thus will be more likely to criticize foreign companies compared to national ones. *Second*, differences in levels of corruption, freedom of the press, local norms, and local laws may cause different consumer responses. For example, U.S. firms continue to run into problems when entering the European market (Jurgens et al. 2010): When Google introduced Google Street View to the German market, the firm encountered enormous resistance from consumers because it had not considered the high importance of data privacy. Thus, scholars are asking for a cross-cultural study (e.g., Cleeren, Dekimpe, and van Heerde 2017), which makes such an examination the *first central research topic* of this paper.

Further, researchers have also investigated the impact of CSI on stock returns. However, these studies do not agree on whether CSI negatively affects stock returns (e.g., Groening and Kanuri 2013; Flammer 2013). Explaining these differences across these studies is challenging. Most importantly, none of the studies investigates how the consumer response determines the stock market reaction. However, the efficient market hypothesis suggests that investors' decisions are based on expectations of changes in future cash flows that are grounded in consumer responses. Thus, the *second central research topic* of this paper is the investigation of whether and how consumer responses determine stock market reactions. On the basis of these considerations, we formulate the following research questions:

1. Do consumers from different countries respond differently to CSI events in terms of brand perception?
2. Do the drivers of this consumer response to CSI events differ across countries?
3. Is the consumer response to CSI events relevant for investors' reaction on stock markets?

A deeper understanding of the consequences of CSI events has several implications for practice. *First*, given that many companies operate in an international context, executives' understanding of national peculiarities and anticipation of potential CSI events is highly relevant. By identifying how consumers from five countries react to CSI events with respect

to brand (e.g., prior brand strength) and CSI-specific characteristics (e.g., media coverage, CSI origin, and CSI type), we give country-specific guidance as to which CSI type (i.e., environmental, social, or governance issues) companies should focus on to prevent potential damage. On a strategic level, this study helps companies entering a new market identify potential risk sources. This identification is critical for marketers to develop economically viable brands (Batra et al. 2017).

Second, this study helps managers infer how changes in consumer perception metrics affect the financial value of a company. Many executive managers have difficulty influencing the value of their shares in times of crisis. This study highlights concrete ways in which the stock price can be influenced through managing relationships with consumers. We give specific guidance on which consumer metrics and which other factors influence a stock price drop after a CSI incident occurs. In addition, this study enables managers to draw financial conclusions relating to changes in consumer perception metrics.

This study also vitally contributes to crisis theory and research. *First*, we adapt the theory of cultural values to explain how the perception of CSI varies across countries. *Second*, we use the efficient market hypothesis to predict how consumer responses determine stock return. *Third*, drawing on observed company and consumer data in real markets, we analyze how CSI events affect the combination of consumer and shareholder perception. *Fourth*, we extend the application range of event studies by analyzing a brand-specific index.

Our investigation relies on a unique and large multi-source dataset. We cover all CSI events that appeared in 77 leading media outlets of five countries from 2008–2014. Our dataset comprises 536 CSI events involving 240 brands from 12 industries. We match these data with company-specific datasets covering consumer perceptions metrics and stock returns. We apply the methodology of an event study, a commonly used methodology to capture the effects of crisis events (e.g., Hsu and Lawrence 2016; Liu, Shankar, and Yun 2017).

The paper is structured as follows: We first present related literature on the consequences of CSI. We then elaborate and explain our conceptual framework. Subsequently, we develop expectations of the impact of CSI events on consumers and stock markets in different countries. We follow with a description of the data collection and the empirical model to identify factors that influence consumers and investors. In the final section, we present and discuss our results.

2 Related Literature

The consequences of corporate social activities of companies have attracted the attention of researchers for many decades. Studies on CSI indeed show a negative impact on consumer mind-set variables (e.g., Ahluwalia, Burnkrant, and Unnava 2000; Pullig, Netemeyer, and Biswas 2006; Roehm and Tybout 2006; Dutta and Pullig 2011; Backhaus and Fischer 2016). However, none of these studies investigated cross-cultural differences. In addition, related research streams of corporate crisis events such as product-harm crises (e.g., Cleeren, van Heerde, and Dekimpe 2013) and celebrity scandals (e.g., Till and Shimp 1998) do not include studies of a cross-cultural comparison. This neglect is surprising, since various empirical cross-cultural studies generally suggest different perceptions and relevance levels of brands across countries (e.g., Fischer, Völckner, and Sattler 2010). To the best of our knowledge, only one empirical survey study has investigated the consequences of CSI in a cross-cultural context. Results of a survey of consumers from 27 countries as to whether they had punished a company they perceived to be socially irresponsible indicated huge differences in consumers' willingness to punish irresponsible behavior, within both developed and developing countries (Williams and Zinkin 2008). Whereas in Australia 61% of respondents indicated they had punished an "irresponsible" company, in the U.S. the number decreased to 47% and in Mexico to 25%. The drawback of that study is that the results were obtained

under hypothetical settings, which then requires managers to infer how CSI activities affect consumers in a real-world scenario that is subject to various disturbance factors. Furthermore, no study has investigated the drivers of the differences in perceptions. Thus, our study extends the current CSI literature by giving guidance on how the perception of CSI effects differs in a real-world environment and identifies the drivers of cross-cultural differences. We acknowledge a few studies on the positive effects of CSR that recognize that some cultures value CSR more than others (e.g., Becker-Olsen et al. 2011; Ioannou and Serafeim 2012; Maignan 2001). However, psychological research suggests that negative stimuli such as CSI are perceived differently than positive stimuli such as CSR (e.g., Wojciszke, Brycz, and Borkenau 1993).

The main impact of CSI on stock return is less clear. Some studies find a negative impact on stock return (e.g., Davidson and Worrel 1988; Flammer 2013; Klassen and McLaughlin 1996; Wright et al. 1995), while other investigations find no impact (e.g., McWilliams and Siegel 1997; Groening and Kanuri 2013). Appendix 1 provides an overview of these studies and positions this examination relative to prior work. How and why these conflicting differences occur across these studies is a challenging question. Several explanations are possible. Most importantly, none of these studies investigates how the consumer response to a CSI event may determine the effect on stock return. However, investors make decisions on the basis of expected future cash flows, which are grounded in consumer perceptions of CSI. Furthermore, many of the previous studies suffer from small sample sizes or a limitation to one type of CSI. This study extends the current literature by investigating diverse CSI events in a cross-country setting and by taking consumer responses into consideration. Last, while we acknowledge an extensive study that investigated the impact of CSI on financial measures (Kölbel, Busch, and Jancso 2017), that study focused on a firm's credit risk and not on stock return and its relationship with consumer response.

3 Conceptual Foundation of a Cross-cultural Model

3.1 Theory of Cultural Values

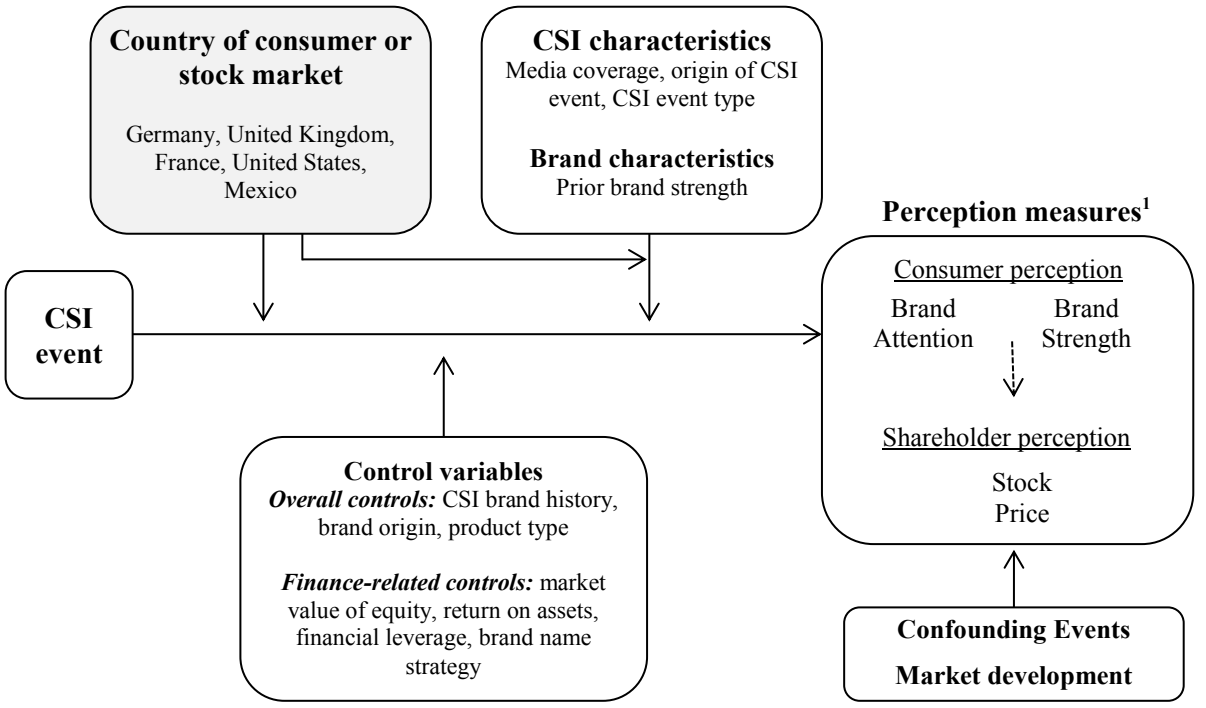
We rely on the theory of cultural values (e.g., Ingelhart 1997; Schwartz 1999; Steenkamp and de Jong 2010) to explain country-specific variation in the perception of CSI. Cultural values comprise beliefs and norms about what is right and wrong and distinguish one member of a group from another through the collective programming of the mind (Hofstede 1991). Through socialization and acculturation, people adopt and accept shared cultural values (Schwartz 1999), with the process of adoption being intensified through media, customs, laws, and norms. As a result, values guide the way individuals evaluate certain events and select certain actions in various situations. Thus, cultural values provide a powerful theoretical basis for understanding changes in attitudes (e.g., Schwartz 1999).

In this study, we focus on the cultural values of national groups. The nation remains a key unit of cultural values because the members of a country share many value-relevant social experiences (Steenkamp and de Jong 2010). The most prominent frameworks of country-wise cultural value systems are those developed by Hofstede (1991), Inglehart (1997), and Schwartz (1999). In our study, we rely mainly on Inglehart's World Value Survey (WVS) as the WVS data have been widely used in prior research (e.g., Steenkamp and Geyskens 2014; Steenkamp and de Jong 2010), are up to date, and involve the countries of this study.

3.2 Elements of the Conceptual Model

Figure 1 shows the conceptual model that we use to explain and measure the impact of CSI events on consumer and shareholder perceptions in a cross-cultural setting. We briefly explain the basic elements of our framework and then formulate the underlying theories and our expectations regarding moderating variables in the next sections.

Figure 1: Conceptual Model



Note: [1] These stakeholder groups represent the interface between the market and firms which is the marketing field's core domain.

CSI events. CSI refers to the failure to act socially responsibly (Lange and Washburn 2012). Compared to product-harm crises (e.g., product recalls), CSI does not necessarily destroy a brand's ability to deliver functional benefits but rather undermines the brand's psychological and symbolic benefits. We distinguish between environmental, social, and governance issues.

Perception measures. We focus on brand attention and brand strength to conceptualize consumer perception. Brand attention refers to the extent to which consumers are aware of a brand owing to the total negative and positive information available through newspapers, social media, word-of-mouth, and the like. Brand strength comprises several performance and image components and describes consumer sentiment toward a brand. Conceptually, both brand performance dimensions relate to the consumer-based brand equity model (Keller 1993), which consists of brand awareness and brand image. To capture shareholder perception, we focus on stock return.

Countries. The main impact of CSI events and its moderators may vary systematically across national cultures. We consider consumers and stock markets in Germany, the U.K., France, the U.S., and Mexico. Thus, we include countries from two continents, covering a wide range of cultural dimensions and including one emerging and several developed countries. However, our final set is limited through restrictions on data availability.

Moderating and control variables. Following prior research (Backhaus and Fischer 2016; Liu and Shankar 2015; Cleeren, Dekimpe, and Helsen 2008) we distinguish between CSI- and brand-specific moderators. As potential drivers, we include media coverage, origin of the CSI event, three CSI event types, and prior brand strength. In addition, we control for CSI brand history, origin of the brand, product type, market value of equity, return on assets, financial leverage, and brand name strategy.

Relationship of consumer and shareholder perception. As prior research has identified a strong link between mind-set metrics and stock return (e.g., Mizik and Jacobson 2008), we also investigate how shareholders take into consideration consumer responses to CSI events.

Confounding events and overall market developments. In line with intensive research on event studies, we control for confounding events (e.g., Flammer 2013), which are influences that may overlap the impact of CSI events on consumer and shareholder perception. For instance, if a firm announces the introduction of a new product on the same day a CSI event occurs, we cannot estimate the precise effect of the CSI event on our perception measures. Ignoring confounding events would lead to a systematic estimation bias (McWilliams and Siegel 1997). We also control for overall market development to forecast the performance of a brand or stock price as if the CSI event had not occurred.

4 Expectations of the Consequences of CSI

4.1 Impact of CSI Events on Consumer Perception

Consumers' attitudinal values toward CSI may differ in different cultural systems. Consumers who come from countries that have high self-expression values rather than survival values care more about social responsibility and environmental protection than about economic assurance (Inglehart and Welzel 2005). According to the WVS, all countries in our sample have rather high self-expression values. Thus, on the basis of the theory of cultural values, we expect a negative impact of CSI on *brand strength* in Germany, the U.K., the U.S., France, and Mexico. However, as Mexico has historically been associated with low levels of CSR owing to high corruption rates, low wages, and poor educational systems (Becker-Olsen et al. 2011), consumers may not blame companies for such commonplace behavior. Thus, we suggest a weaker impact of CSI events on *brand strength* for Mexican consumers.

Overall, we expect that, in contrast to their impact on *brand strength*, CSI events have a positive effect on *brand attention*. Negative corporate activities are discussed in news media, social media, and on the street and thereby boost *brand attention*. Table 1 summarizes our expectations regarding the effect of CSI on brand strength, brand attention, and stock return.

Effect of media coverage. Through the process of acculturation and socialization in the western world, consumers commonly see public media as a trusted and credible source of information (Bandura 2001). Media coverage determines what consumers perceive as real (e.g., Bandura 2001) and thus influences consumers' evaluations of CSI events. We therefore suggest that the increasing media coverage in public press outlets[13] surrounding the CSI has a negative impact on *brand strength* and a positive impact on *brand attention* in all analyzed countries. However, the way people use media varies around the world. According to the

[13] We define media coverage as the relative number of press media outlets that report about a CSI event. Strictly speaking, our results only hold for press media outlets. However, on the basis of prior research (e.g., Hewett et al. 2016), we assume a strong correlation between CSI event coverage in press outlets and TV, radio, or the internet.

WVS, only 47.8% of Mexican consumers read newspapers on a regular basis. This proportion is approximately 20% smaller than in the other countries. Consequently, the impact of increasing media coverage on *brand strength* and *brand attention* is smaller in Mexico than in Germany, the U.S., the U.K., and France.

Table 1: Expectations Regarding the Effect of CSI on Perception Metrics

	Perception Metrics	Overall Effect	World Value Survey (WVS) Explanations about country specific differences	Relevant WVS dimensions[1]
Main effect of CSI event	Brand Strength Brand Attention Stock Return	– + –	The WVS data suggests a negative impact of CSI on consumers from all analyzed countries as all countries have high self-expression values. However, as Mexico is associated with low levels of CSR due to high corruption rates, low wages and poor educational systems, we suggest a weaker impact of CSI on brand strength and brand attention in Mexico than in the other countries.	Survival values versus self-expression values [-2.5 to 2.5]: UK = 1.7, MX = 1.1, GER = .6, US = 1.8, FR = 1.2
CSI characteristics				
Media coverage	Brand Strength Brand Attention Stock Return	– + –	The WVS data indicates that the percentage of people who read the newspapers on a regularly basis is lower in Mexico than in the other countries. Thus, we suggest a low impact of media coverage in Mexico on brand strength and brand attention.	Percentage of people that read the newspaper weekly: UK = 71%, MX = 48%, GER = 82%, US = 61%, FR = 62%
National CSI event caused by foreign brand	Brand Strength Brand Attention Stock Return	– + N/E	The WVS data indicates that consumers from the U.S., the U.K., and Mexico have high patriotic values. We suggest that consumers from patriotic countries are more likely to blame foreign companies for national crisis events.	Percentage of people who are very proud of their nationality: UK = 50%, MX = 83%, GER = 20%, US = 62%, FR = 28%
CSI event type: Governance issue as reference group				
Social issues	Brand Strength Brand Attention Stock Return	– + N/E	The WVS data highlights that the number of people who would accept bribery is much higher in Mexico and France. Thus, governance issues have a lower relevance in these countries. However, we investigate further effects in an explorative way.	Percentage of people who state that accepting bribery may be justified: UK = 5%, MX = 17% , GER = 7%, US = 10%, FR = 16%
Environmental issues	Brand Strength Brand Attention Stock Return	– + N/E		
General brand characteristic[1]				
Prior brand strength	Brand Strength Brand Attention Stock Return	+ N/E +	No prior expectations on country-specific differences	

Notes: N/E = No prior expectations;[1] We use data from the WVS-wave 2008 to avoid any simultaneity issues as the WVS data could potentially be influenced by CSI events. For details on sampling, questionnaires, and fieldwork see worldvaluessurvey.org.

Effect of national CSI event. Generally, we suggest a negative impact of national CSI events on *brand strength* and a positive impact on *brand attention* as events occurring at the consumer's doorstep are more likely to threaten consumers' daily life (Backhaus and Fischer 2016). However, drawing on the theory of cultural values, we expect differences across countries. The theory of cultural values highlights that different countries have different levels of patriotic and traditional values (Inglehart and Welzel 2005). Countries that rate high in patriotic values may be more likely to criticize companies for CSI events that take place in the living region of consumers. In line with the idea of ethnocentrism (Shimp and Sharma 1987), this effect may be even stronger if a foreign company is involved since consumers behave patriotically and want to protect their own economy. According to the WVS data, 82.9% of Mexican consumers, 62.3% of U.S. consumers, and 49.9% of U.K. consumers state they are very proud of their nationality. Germany (20%) and France (28.4%) have rather low patriotic values. Consequently, we expect CSI events of foreign companies to have stronger negative effects on *brand strength* and stronger positive effects on *brand attention* of Mexican, U.S., and U.K. consumers.

Effect of CSI event types. We generally expect that consumers find CSI events concerning social issues and environmental issues more threatening than governance issues such as bribery, corruption, or breach of trust. Imagery research (e.g., Pinker and Kosslyn 1983) suggests that topics concerning social and environmental issues are particularly likely to be emotionalized as they raise stronger negative images in consumer mind sets than rather abstract events such as corruption or tax affairs. Thus, we suggest a stronger negative impact of social and environmental issues on *brand strength* and a stronger positive impact on *brand attention.* In an exploratory way, we investigate how the impact of CSI event types differs among countries.

Effects of prior brand strength. Following prior research (e.g., Backhaus and Fischer 2016), we suggest that prior brand strength serves as a protective shield against the negative consequences of CSI events on *brand strength*. Consumers de-emphasize negative news for their preferred brands to avoid inconsistencies with their knowledge about a brand (Backhaus and Fischer 2016). However, we find no arguments supported by the theory of cultural values that would explain cross-cultural differences. The impact of prior brand strength on *brand attention* is less clear. The potential gain in awareness due to negative news is higher for weak brands because strong brands already have a high level of awareness (Berger, Sorensen, and Rasmussen 2010). Conversely, consumers may focus and concentrate on only stimuli they are familiar with. Therefore, we do not formulate any prior expectations.

Last, we add several control variables (e.g., CSI brand history).

4.2 Impact of CSI Events on Shareholder Perception

Drawing on the efficient market hypothesis (Fama et al. 1969), we propose a general negative impact of CSI events on *stock return* for all the analyzed stock markets. In theory, market value of a company equals the present value of its expected cash flows. As CSI events may lead to legal sanctions, fines, and lower sales, CSI events threaten companies' ability to generate such future cash flows. Accordingly, the occurrence of CSI events is immediately reflected in the stock price. Whether and how stock markets may react differently across countries is a more challenging question. The theory of cultural values may not be applicable to explain how stock markets in different countries react differently to CSI. Instead, the capital market theory suggests that all investors assume the same probabilities for the outcomes of CSI regardless of the stock market's country (e.g., Fabozzi 2015). We explore stock market reactions in the different countries as an additional analysis.

Effect of consumer response. Our basic premise is that the negative effects of CSI on *stock return* vary with the impact of CSI on consumers. Changes in brand strength serve as a

clear signal to investors of how strong the potential negative effects of CSI may be on future cash flows. Although companies might save costs through lower ethical standards (e.g., poor working conditions), CSI activities will outweigh the potential benefits, as changes in brand strength indicate a company's failure to please its stakeholders and make it more difficult to build up a strong reputation in the future (Groening and Kanuri 2013). Related empirical research indicates that changes in consumer brand perception metrics cause changes in stock return (e.g., Mizik and Jacobson 2008). We therefore suggest that negative brand strength changes have a negative impact on *stock return*.

How changes in brand attention determine stock return is a more challenging question. As brands are one of the most valuable assets for many companies, a boost in brand awareness may also lead to additional future cash flows. However, if consumers assess the valence of the increase in attention, the effect may be negative. Thus, we do not formulate any further expectations about the effect of brand attention changes on *stock return*.

Effect of media coverage. As with the impact on consumer perception, we suggest a negative impact of increasing CSI media coverage on *stock return*. To better anticipate a firm's net value, investors use media coverage as a signal to determine the severity of the CSI event.

Effect of prior brand strength. We suggest that prior brand strength serves as a protection against the negative consequences of CSI on *stock return*. Investors may believe that especially strong brands have the capability to find appropriate ways to overcome a crisis, which then is reflected in stock prices.

Again, we add several control variables (e.g., market value of equity). We have no prior expectations regarding the effects of different CSI event types on stock price but add them as control variables. Investors may also consider the financial consequences of governance issues (e.g., price fixing), which may be even higher than for social and environmental issues.

5 Data and Methodology

5.1 Database

We use several information sources to create a database of CSI events and consumer and shareholder perception. We use the newspaper databank LexisNexis to identify CSI events and confounding events. We employ stock price data from Thomson Reuters. To include finance-related control variables, we use Compustat. To capture consumer mind-set variables, we use data provided by the market research company YouGov, which captures consumer perception of 2,300 brands on a daily basis. This dataset has been used quite frequently in recent research (e.g., Hewett et al. 2016; Luo, Raithel, and Wiles 2013). The big advantage of the YouGov data over other brand perceptions measures such as the Harris' Equitrend measure (e.g., Rego, Billet, and Morgan 2009) is that it is available in multiple countries at a daily level, which aligns with the identified events and stock market data.

Identifying CSI events. We identified CSI events through a comprehensive and broad media analysis (Flammer 2013). *First*, to identify genuine CSI events, we searched stepwise for newspaper and magazine articles that included CSI-related keywords and one of the 2,300 brand names between 2008 and 2014. We analyzed the major 77 offline and online newspapers and magazines with the largest circulations of the five countries covered in Lexis Nexis[14] (see Appendix 2). In this first step, we identified more than 50,000 articles. As a *second* step, one author of this paper and six graduate students read all 50,000 articles. We set up objective criteria on how to identify CSI events (see Appendix 3). During this procedure, we made sure that we identified the date when the event was first published. Note that the CSI events in our dataset take place throughout the world and could be caused by national or foreign brands. We covered CSI events as long as the national media of the selected countries reported them. *Third*, we removed CSI events with missing perception data and events that

[14] We also searched individually in additional data archives for those outlets not available in LexisNexis. However, our final choice is restricted by the availability of accessible news archives.

are confounded by other events (see Appendix 4). Table 2 gives an overview of the data cleaning and the final data set.

Our final sample consists of 536 CSI events,[15] of which 141 events are covered from the German press, 173 from the U.S. press, 203 from the U.K. press, 65 from the Mexican press, and 92 from the French press. Furthermore, for the stock return analysis, we cover only the brands whose mother companies are listed on the stock market. The number of CSI events is therefore reduced to media outlets' coverage of 126 events from the U.S., 14 events from Mexico, 23 events from Germany, 35 events from the U.K, and 29 events from France.

Table 2: Sample and Descriptives

	Multi-Country	US	Mexico	Germany	UK	France
Information on media analysis						
Time Frame	02.2008 - 05.2014	01.2009 - 11.2012	05.2011 - 05.2014	01.2008 - 12.2012	01.2009 - 07.2013	09.2011. - 05.2013
Brands in YouGov Universe	2,300	1,200	325	600	925	300
Media outlets analyzed	77	15	13	15	16	18
CSI events in public media						
Identified CSI events in public media	1054[a]	393	123	315	461	236
- Missing data on consumer perception	N/A	-98	-31	-41	-63	-42
- Confounded events	N/A	-122	-26	-133	-195	-102
(I) Final CSI event set (consumer analysis)	**536**[a]	**173**	**65**	**141**	**203**	**92**
Final brand event set (consumer analysis)	**240**[a]	**94**	**28**	**64**	**107**	**56**
- No data on stock return	-309	-47	-51	-118	-168	-63
(II) Final CSI event set (shareholder analysis)	**227**	**126**	**14**	**23**	**35**	**29**
Some further descriptives[b]						
Crisis event types: Governance issue	55.41%	61.27%	67.69%	43.26%	49.75%	63.04%
Social issue	36.38%	27.17%	27.69%	48.22%	41.38%	30.43%
Environmental issue	8.21%	11.56%	4.62%	8.51%	8.87%	6.52%
National CSI events	N/A	44.76%	61.54%	31.91%	40.39%	50.00%

Notes: [a] Does not add up as some CSI events / brands are observed in several countries; not available (N/A).
[b] Based on final CSI event set (consumer analysis) after deleting missing data and confounding events.

[15] For two reasons, we do not observe each event in each country. First, many events are not covered by the national press of a country. A key feature of the study's identification strategy is that a CSI event must be published by at least one media outlet of a country. Second, our observation period differs somewhat across countries because YouGov started collecting its BrandIndex data at different points in time. In 2013, YouGov introduced a change of its methodology across markets. Even though the change was modest, our observation period by country ends with that change to ensure a consistent measurement of the consumer perception data.

Consumer perception measures. We obtain daily country-specific brand perception data for Germany, France, the U.K, the U.S., and Mexico for 2008–2014 from YouGov. Our brand strength variable combines the YouGov BrandIndex dimensions perceived quality, perceived value, consumer satisfaction, reputation, general impression, and recommendation. In line with established research on attitudinal scales (e.g., Bearden, Netemeyer, and Haws 2011), brand strength is measured on a three-point scale, on which respondents state which brands they perceive negatively (1), neutrally (2), or positively (3) out of a set of competitor brands. The final brand strength metric is then transformed to an index ranging from 100 to 300. The number of respondents across countries varies between 3,500 (e.g., in the U.S.) and 300 (e.g., in Mexico) per brand and week. We account for a potential measurement error owing to heterogeneous sample sizes across countries in our econometric specification. Our brand attention variable measures whether people have recently heard either nothing (2) or something positive or / and negative (3) about a brand and thus ranges from 200 to 300. Details on the YouGov indices are provided in Appendix 5. We also provide additional measurements of these perception measures to ensure robustness.

Shareholder perception measure. We use daily stock return data in U.S. dollars. We cover the companies that are listed on the global New York Stock Exchange market, and on local markets such as the Frankfurt Stock Exchange, London Stock Exchange, Paris Bourse, and Mexican Stock Exchange. The selection of these countries aligns with our media analysis in these countries.

5.2 Event Study Methodology

We use the methodology of an event study to estimate the effects of CSI events on brand strength, brand attention, and stock return. The event study is a well-known and well-accepted method in the academic literature to investigate the consequences of crises (Thirumalai and Sinha 2011; Hsu and Lawrence 2016; Eilert et al. 2017; Liu, Shankar, and Yun 2017). The

intuition behind the methodology of an event study is straightforward. Via an event study, we can assess whether a change in stock price has occurred randomly or can be explained by the CSI event. Therefore, we forecast the returns that would be expected if the event did not take place and compare them to the actual returns. If these abnormal returns are statistically significant, we can show that a CSI event affects stock return (alternatively, brand strength return[16] or brand attention return).

Model to calculate abnormal returns. In line with prior research (e.g., Homburg, Vollmayr, and Hahn 2014; Mazodier and Rezaee 2013), we use the market model (Brown and Warner 1985) to estimate abnormal returns (AR) which seem to be best suited to cross-national event studies (Campbell, Cowan, and Salotti 2010):

$$AR_{cit} = R_{cit} - (\alpha_{ci} + \beta_{ci} R_{mt}) \quad (1)$$

R_{it} represents the return of a stock of CSI event *i* (alternatively, return of brand strength or brand attention) published in the media outlet of country *c* on day *t*, R_{mt} denotes the return of a market index *m*, and α and β denote firm-specific parameters. We use country-specific indices to capture market developments in the home country. For stock return, we use the most representative stock market indices of a country, such as the S&P 500 (U.S.), CDAX (Germany), FTSE All-Share Index (U.K.), CAC All-Tradable (France), and IPC (Mexico). For brand strength, we use the overall home-country BrandIndex by YouGov, which is a combined measurement across the most important brands of a country. Similarly, we use the home-country BrandAttentionIndex by YouGov to estimate the abnormal brand attention returns.

Estimation and event window. In line with previous research (e.g., Mazodier and Rezaee 2013), we use an estimation window of 125 days starting 15 days prior to the event. The event window is composed of five days after the announcement day. In the event

[16] A brand strength return expresses the percentage deviation in the brand strength index.

window, we first cumulate the abnormal returns (CAR) across the event days a and b. We then calculate the cumulative average abnormal returns across all CSI events (CAAR).

$$\mathrm{CAR}_{ic}[\mathrm{a},\mathrm{b}] = \sum_{t=\mathrm{a}}^{\mathrm{b}} AR_{tci} \tag{2}$$

$$\mathrm{CAAR}_{c}[\mathrm{a},\mathrm{b}] = \frac{1}{N} \sum_{i=1}^{N} \mathrm{CAR}_{ic}[\mathrm{a},\mathrm{b}] \tag{3}$$

Testing procedure. In a *first* step, we use several statistical tests to assess the statistical significance of the country-specific CAAR[a,b]. To ensure robustness, we apply a standard t-test and several further tests, such as the z-test (Brown and Warner 1985) or the nonparametric rank test (Corrado 1989). In a *second* step, we use an analysis of variance (ANOVA) to investigate whether the main effects of CSI differ between the countries. Comparing the country-specific cumulative abnormal brand strength returns (alternatively, brand attention returns), we weight each observation with a normed variance—that is, the sample size of respondents per country—to control for a potential sampling error produced by the heterogeneous YouGov sample sizes across countries.

5.3 Cross-sectional Regressions

For each country separately, we regress the individual cumulative abnormal brand strength returns CAR (alternatively, brand attention returns) of the event window (i.e., a to b) of CSI event *i* published in the media outlet of country *c* on CSI characteristics, brand characteristics, and control variables. The econometric specification of our ordinary least squares (OLS) regressions takes the following form.

$$\mathrm{CAR}_{ic}^{BrandStrengthReturn}[\mathrm{a},\mathrm{b}] = \beta_0 + \sum_{k}^{K} \beta_{1k}\, \mathrm{CSICharacteristics}_{ick} + \sum_{e}^{E} \beta_{2e}\, \mathrm{BrandCharacteristics}_{ice} + \sum_{v}^{V} \beta_{3v}\, \mathrm{ControlVariables}_{icv} + \varepsilon_{ic} \tag{4}$$

The independent variables are CSI characteristics *k*, brand characteristics *e*, and control variables *v*. The parameter β_0 denotes the intercept, β_{1k}, β_{2e}, and β_{3v} are the regression estimates and ε_{ic} denotes the error term which is assumed to be normally distributed.

Investigating the cumulative abnormal stock market returns as the dependent variable, we also use OLS regressions. However, we additionally include the cumulative brand strength returns, brand attention returns, and their interaction as independent variables. To account for a potential sampling error of these variables, we use bootstrapping specifications with 5,000 draws (Luo 2009).

5.4 Operationalization of the Independent Variables

Table 3 summarizes the measurement of variables and presents descriptive results. *Media coverage* is measured as the relative number of media outlets that report on a certain CSI event of a brand within the focal country. Of the analyzed outlets, 95% cover CSI events within only three days. *National CSI event* refers to the origin of the CSI event and is a dummy variable. For the vast majority of events, this is unambiguous. If disagreement occurred among coders, it was resolved by discussion. The very few truly global events, such as the manipulation of interest rates (LIBOR scandal), are coded domestic in all countries. *Foreign brand* is a dummy variable that varies across countries and is coded on the basis of company headquarters information. We code the *CSI event types* as dummy variables, differentiating between social, governance, and environmental issues. We set up objective criteria on how to clearly define each type (see Appendix 3).

Prior brand strength is measured as the mean value of the country-specific brand strength values across 30 days before the CSI event took place. By measuring the variable for a time before the CSI event, we avoid simultaneity issues. *CSI brand history* of the recent past measures the number of CSI events for the focal brand in the 12 months preceding the current CSI event. We apply a linear time weight to the accumulation to account for the process of forgetting. *Brand type* follows the common classification of goods into durables, non-durables, services, and retails.

Table 3: Measurement of the Variables and Summary Statistics

Variables	Description	Source	N[a]	Mean	Max	Min	SD
Country Effects							
Number of CSI events in country							
US	Dummy for country	Press research	173	25.63%	-	-	-
Mexico	Dummy for country	Press research	66	9.78%	-	-	-
Germany	Dummy for country	Press research	141	20.89%	-	-	-
UK	Dummy for country	Press research	203	30.07%	-	-	-
France	Dummy for country	Press research	92	13.63%	-	-	-
CSI-specific characteristics							
Media coverage (*country specific*)	Percentage of media outlets that report CSI event within a country	Press research	674	.28	1	.06	.20
National CSI event (*country specific*)	Dummy variable indicating national CSI event	Press research	347	51.48%	-	-	-
National CSI event caused by foreign brand (*country specific*)	Dummy variable indicating that foreign brand is involved in national CSI event	Press research	109	16.17%	-	-	-
CSI event types:							
Governance issue	Dummy for CSI type	Press research	297	55.41%	-	-	-
Social issue	Dummy for CSI type	Press research	195	36.38%	-	-	-
Environmental issue	Dummy for CSI type	Press research	44	8.21%	-	-	-
Brand-specific characteristic							
Prior brand strength (*country specific*)	Mean value of country specific BrandIndex across 30 days before the CSI event takes place	YouGov	674	16.23	70.11	-36.90	19.59
Control variables							
CSI brand history (*country specific*)	Count variable with linear decay effect to account for the process of forgetting	Press research	674	.92	7.33	.00	1.44
Brand type:							
Services	Dummy for brand type	Press research	345	64.37%	-	-	-
Durables	Dummy for brand type	Press research	61	11.38%	-	-	-
Non-Durables	Dummy for brand type	Press research	25	4.7%	-	-	-
Retailer	Dummy for brand type	Press research	105	19.6%	-	-	-
Foreign brand (*country specific*)	Dummy indicating foreign brand (from home country perspective)	Own research	358	53.12%	-	-	-
Financial leverage[b] (*stock market analysis*)	Total liabilities divided by total assets (calendar year before crisis event took place)	COMPUSTAT	227	1.91	9.01	.29	1.33
Return on assets[b] (*stock market analysis*)	Net income divided by total assets (calendar year before crisis took place)	COMPUSTAT	227	.05	.26	-.19	.05
Market value of equity[b] (*stock market analysis*)	Outstanding share multiplied by stock price (14 days before CSI event took place)	COMPUSTAT	227	742694 [thsd]	10630063 [thsd]	.34 [thsd]	1638184 [thsd]
Brand name strategy[b] (*stock market analysis*)	Dummy variable indicating that the name of the brand is identical (or similar) with the name of the company	Own research	182	80.18%	-	-	-

Notes: [a] If we count CSI events country wise, sample size is 674; [b] Sample size of crisis events is reduced to 227 for stock market analysis.

For the analysis of CSI events on shareholder perception, we additionally include the consumer responses to CSI. *Negative brand strength returns* is operationalized as the reversed-coded immediate cumulative abnormal brand strength returns of the event window a = 0 to b = 1 in the focal country. *Brand attention returns* is operationalized as the immediate cumulative abnormal brand attention returns of the event window a = 0 to b = 1 in the focal country. *Brand name strategy* indicates whether the name of the brand is identical with the name of the company. For the measurement of *financial leverage*, *return on assets*, and *market value of equity*, we follow prior research (Sorescu, Warren, and Ertekin 2017).

5.5 Identification Strategy and Simultaneity Issues

Our identification strategy relies on the assumption that the identified CSI events are a sudden well-publicized and unexpected shock in the environment of a firm. This assumption is in line with prior investigations of the impact of crisis events (e.g., Dawar and Lei 2009; Dutta and Pullig 2011; Flammer 2013). Our model also relies on the assumption that the identified CSI events vary randomly across brand and CSI characteristics. Appendix 6 shows that we barely find structural difference across the brands involved and not involved in CSI.

We identify media coverage as an independent variable that may raise simultaneity issues because a strong negative impact on stock return may also attract more media attention. We employ instrumental-variable (IV) estimation with exogenous information that identifies the variable media coverage (Wooldridge 2016). Specifically, we regress media coverage on Google Trends. Google Trends describes the volume of people who search for a specific brand using the online search engine Google (Stephen and Galak 2012). Journalists and editors use Google Trends as a "radar" to discern which topics are currently demanded by consumers. As we measure Google Trends one month prior the event date, it is thus by construction not directly related to the immediate reaction of a present CSI event on stock return. The instrument turns out to be strong according to the incremental F-statistic (Angrist

and Pischke 2009). However, on the basis of the Hausman-Wu test (Wooldridge 2015), we cannot reject the exogeneity assumption for media coverage. Since IV estimation produces less efficient estimates than standard estimation, we do not focus on IV estimation results, but we report them in full detail including statistics on the strength of the instrument in Appendix 7.

As an additional way to deal with the potential endogeneity of the media coverage variable, we conduct a content analysis and identify the articles that mentioned the stock market reaction. We eliminate the media outlets that report the stock market reactions and operationalize the media coverage variable based on the remaining media outlets. The intuition behind this approach is the fact that a journalist would be very likely to include stock market reactions in the editorial content of an article if it is a crucial argument to come up with a story. The results are consistent with our reported results (see Appendix 7).

6 Results

6.1 Model-free Evidence

In Table 4, we provide first insights into the abnormal returns per country. We select a six-day event window (a = 0, b = 5) for the analysis on consumer perception and a two-day event window (a = 0, b = 1) for the analysis on shareholder perception. Prior research suggests selecting the event windows on the basis of the most significant CAARs (e.g., Homburg, Vollmayr, and Hahn 2014), an approach that is consistent with our selected event windows. Consumers thus need a longer time to become aware of and process new information compared to shareholders.

Table 4: Model-free Evidence

	Abnormal Brand Strength Returns CAAR[0,5]					Abnormal Attention Returns CAAR[0,5]					Abnormal Stock Returns CAAR[0,1]				
CAAR(a,b) in percentage	**US**	**MX**	**GER**	**UK**	**FR**	**US**	**MX**	**GER**	**UK**	**FR**	**US**	**MX**	**GER**	**UK**	**FR**
Mean	-.44	-1.84	-.44	-.42	-.71	.72	1.17	.55	.78	.99	-.02	.44	-1.10	-1.29	-1.27
Median	-.43	-2.98	-.25	-.29	-.64	.51	-.25	.53	.69	1.10	-.01	.02	-.46	-.51	-.49
Standard deviation	2.42	17.91	1.81	2.14	2.78	3.88	13.18	3.14	3.85	4.94	2.57	2.11	2.06	3.17	2.35
Maximum	5.66	62.45	5.01	5.03	5.88	12.62	34.90	13.52	22.61	16.86	7.73	4.96	1.16	2.34	4.57
Minimum	-7.80	-44.30	-5.92	-15.23	-9.49	-8.34	-26.37	-6.17	-7.57	-12.94	-9.83	-3.12	-5.27	-14.72	-9.83
N (CSI events)	173	65	141	203	92	173	65	141	203	92	126	14	23	35	29
Average # of survey respondents (YouGov) in the event window	3,500	310	2,810	3,260	1,980	590	50	470	550	340	-	-	-	-	-
CSI-specific drivers															
Local media coverage (high)	-1.10	-2.35	-.60	-.57	-1.52	1.09	-.66	.13	.20	-.82	-.03	.31	-1.19	-1.52	-1.36
Local Media Coverage (low)	-.01	-1.22	-.27	-.33	-.26	.53	3.43	-.27	.15	2.00	.02	.89	-.88	-1.00	-1.17
t-test statistic (mean difference)	3.5^{S}	.7	2.8^{S}	2.2^{S}	3.0^{S}	2.1^{S}	.3	3.7^{S}	4.4^{S}	.9	.8	.5	2.3^{S}	2.1^{S}	2.1^{S}
National CSI event	-.53	-4.73	-.97	-.79	-.50	.76	1.24	2.06	1.53	1.96	.15	.58	-1.83	-1.22	-1.10
International CSI event	-.13	2.77	-.19	-.16	-.93	.60	1.04	-.16	.27	.03	-.76	-1.38	-.62	-1.36	-1.89
National CSI event X foreign brand	-.70	-1.13	-.80	-1.42	-.98	1.26	-1.30	2.74	2.20	2.68	-	-	-	-	-
F-test statistic (mean differences)	5.2^{S}	3.9^{S}	6.9^{S}	8.7^{S}	1.0	2.7	.6	11.7^{S}	7.8^{S}	4.0^{S}	.5	1.0	7.3^{S}	2.3	7.8^{S}
Governance issue	-.25	-.89	-.18	-.31	-.72	.26	1.54	.93	1.30	1.55	.12	.46	-1.40	-1.82	-1.54
Social issue	-.15	-4.49	-.74	-.64	-.46	1.69	.72	.04	.02	1.05	-.27	.01	-1.05	-.89	-.61
Environmental issue	-2.11	.07	-.07	.07	-1.86	.90	-1.72	.15	1.64	-4.62	-.32	-	.35	-.55	-1.55
F-test statistic (mean differences)	8.0^{S}	.6	5.8^{S}	3.8^{S}	1.7	3.5^{S}	.2	2.8^{S}	5.0^{S}	4.4^{S}	.3	.0	1.1	.4	1.2
Brand-specific driver															
Prior brand strength (high)	-.42	-5.89	-.52	-.41	-1.57	.39	2.41	.21	.73	.77	-.00	.67	-.54	-.16	-.61
Prior brand strength (low)	-.45	4.63	-.33	-.43	-.35	.99	-.83	1.03	.82	1.09	-.00	-.14	-1.97	-.16	-1.50
t-test statistic (mean difference)	1.5	2.1^{S}	2.5^{S}	1.9	3.0^{S}	.9	1.1	.6	1.9	.8	.0	1.0	.9	.1	.8
Consumer response (for stock market analysis)															
Negative brand strength returns	-	-	-	-	-	-	-	-	-	-	-.32	-.18	-1.10	-1.16	-1.59
Positive brand strength returns	-	-	-	-	-	-	-	-	-	-	.33	1.25	-1.09	-1.15	-.85
t-test statistic (mean difference)	-	-	-	-	-	-	-	-	-	-	1.0	.2	1.8^{S}	1.7^{S}	3.9^{S}
Negative brand attention returns	-	-	-	-	-	-	-	-	-	-	.02	.25	-.05	-1.40	-1.30
Positive brand attention returns	-	-	-	-	-	-	-	-	-	-	.02	.68	-1.74	-1.24	-1.27
t-test statistic (mean difference)	-	-	-	-	-	-	-	-	-	-	.1	.3	.8	1.5	2.8^{S}

Notes: Event windows selected based on most significant t-test statistic (see estimation results); S if $p < .05$ (one-sided t-test or standard F-test).

We find that the mean for the CAARs is negative for brand strength, positive for brand attention, and negative for stock return in all countries, except for the stock price returns on the Mexican market (see Table 4). Notably, the standard deviation of brand strength and attention is approximately seven times larger in Mexico than in the other countries. This difference may be caused by the significantly smaller number of respondents that rate brand strength and brand attention in Mexico.

We also provide model-free insights into the drivers of the cumulative abnormal returns per country. For this purpose, we compare the CAARs between groups of observations that scale high and low on a variable (see Table 4). We create these groups for the metric variables such as prior brand strength based on the sample mean. For categorical variables, the groups are already defined. These preliminary results are consistent with our expectations.

6.2 Estimation Results

In our empirical results, we find no multicollinearity issues. Variance of inflation factors of all variables are below three. Further, we find no problematic issues of the standardized residuals. We included brand-specific error terms to control for unobserved heterogeneity, but excluded them again as they proved to be insignificant. The models show acceptable fits according to R^2, which ranges from .06 to .29. Table 5 shows the results of the main impact of CSI on perception metrics. Table 6, 7, and 8 show the results of the cross-sectional analyses.

Main impact of CSI on brand strength and attention. We find support for the negative impact of CSI events on brand strength in all analyzed countries (see Table 5). With respect to the CAAR [0,5], the analysis indicates statistically significant returns ($p < .05$) of -.44% in the U.S., -4.44% in Mexico[17], -.44% in Germany, -.42% in the U.K., and -.71% in France. Surprisingly, an ANOVA does not indicate any differences across the countries (F-test, $p = .91$, see Appendix 8). Also in line with our expectations, we find a positive impact of CSI

[17] In Mexico, we find significant CAARs only for the event window a = 0 to b = 4. To assure a consistency across the analyses, we resort to the selected event window (a = 0, b = 5) in the cross-sectional regressions.

events on brand attention with statistically significant returns ($p < .05$) of .72% in the U.S., 4.63% in Mexico,[18] .55% in Germany, .78% in the U.K., and .99% in France. Again, an ANOVA does not indicate any differences across the countries (F-test, $p = .98$, see Appendix 8).

Table 5: Main Impact of CSI on Perception Metrics: Estimation Results

(I) DV: Abnormal brand strength returns in percentage										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.01		.31		.00		-.08		-.18	
-3	-.10		3.36		.05		-.02		.00	
-2	-.09		-1.89		-.28		-.07		.04	
-1	-.03		2.41		.07		.02		-.05	
0	-.07	-.07	-2.44	-2.44	-.22	-.22	-.26**	-.26**	-.14	-.14
1	-.41**	-.47***	-3.32	-5.76**	-.21	-.43***	-.09	-.35***	-.59**	-.73**
2	.25	-.21	2.91	-2.85	-.06	-.50***	.11	-.24**	.16	-.57**
3	-.30**	-.53***	-1.75	-4.60	.06	-.44***	-.09	-.33**	.32	-.25
4	.42**	-.11	.15	-4.44**	.10	-.34**	-.02	-.35***	-.26	-.51**
5	-.33**	-.44***	2.60	-1.84	-.10	-.44***	-.07	-.42***	-.20	-.71***
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	
(II) DV: Abnormal brand attention returns in percentage										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.58*		-1.83		.08		-.30		.23	
-3	-.02		.30		.11		.31		.16	
-2	.06		1.29		.28		-.05		-.44	
-1	.13		-.81		-.02		-.04		-.23	
0	.15	.15	-.13	-.13	.60***	.60***	.96***	.96***	.66	.66
1	.86***	1.01***	-1.16	-1.29	-.02	.58**	.44**	1.41***	-.16	.50
2	-.17	.84***	2.38	1.08	-.27	.31	-.28	1.13***	.24	.74
3	-.10	.75***	3.55**	4.63***	.52**	.83***	-.08	1.05***	.11	.85**
4	-.06	.69**	1.03	2.11	-.28	.55**	-.06	.99***	-.04	.81
5	.03	.72***	-.95	1.17	.00	.55**	-.21	.78***	.18	.99**
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	
(III) DV: Abnormal stock price returns in percentage:										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.04		.38	-	.60		.08		-.64***	
-3	-.08		-.05	-	-.26		-.24		-.17	
-2	.08		-.15	-	-.43		.01		.14	
-1	-.19		-.54	-	-.24		-.11		-.04	
0	-.16	-.16	.30	.30	-.99***	-.99***	-.58***	-.58***	-.36**	-.36**
1	.14	-.02	.13	.44	-.11	-1.10***	-.71	-1.29***	-.91***	-1.27***
2	.12	.10	-.22	.21	-.08	-1.18**	-.42	-1.71**	-.01	-1.29***
3	-.18	-.08	.38	-.18	.03	-1.14**	.09	-1.62	-.14	-1.42***
4	-.01	-.09	-.05	-.30	.06	-1.08	-.14	-1.76**	-.12	-1.54**
5	.13	.04	-.15	-.14	-.40	-1.48	-.11	-1.87**	.40	-1.14
	N (CSI events) = 126 N (brands) = 70		N (CSI events) = 14 N (brands) = 5		N (CSI events) = 23 N (brands) = 12		N (CSI events) = 35 N (brands) = 18		N (CSI events) = 29 N (brands) = 17	

Notes: ** $p < .05$, *** $p < .01$ (one-sided t-test); in t = 0 CSI event appears in the news.

[18] Again, in Mexico, we find significant CAARs only for a different event window (a = 0 to b = 3).

Main impact of CSI on stock return. The analysis of the abnormal stock returns indicates that stock markets do not react to the CSI event prior the event date. This result suggests that the CSI events are indeed exogenous and a random shock to the firm's environment. Most interestingly, stock market reactions differ between countries. With respect to the CAAR[0,1], the analysis reveals statistically significant negative returns ($p <$ .01) of -1.10% in Germany, of -1.29% in the U.K., and of -1.67% in France. We find no significant effects in the U.S. or Mexico (see Table 5 for details).

Cross-sectional analysis of the CSI effect on brand strength. We find several variables driving the impact of CSI events on brand strength (see Table 6). We find that increasing media coverage has a strong negative impact on brand strength in the U.S., Germany, the U.K., and France ($p < .05$). A pairwise t-test for independent samples does not indicate that the media coverage coefficient differs among these countries (for all comparisons $p > .05$). Only in Mexico do we find that media coverage is not a significant driver ($\beta = -.018$, $p = .06$). This result is in line with our expectations. Furthermore, we find that domestic events caused by foreign brands have a negative impact on brand strength in countries where national pride is high, such as the U.S. ($\beta = -.018$, $p < .05$), Mexico ($\beta = -.031$, $p < .01$), and the U.K. ($\beta = -.015$, $p < .01$). This result is consistent with our expectations. Again, a pairwise t-test for independent samples does not indicate differences across these countries (for all comparisons $p > .05$). With respect to the CSI event types, we find that social issues have a stronger negative impact than governance issues in Germany ($\beta = -.011$, $p < .01$) and the U.K. ($\beta = -.006$, $p < .05$). In the U.S., we find that environmental issues have a stronger impact on brand strength than governance issues ($\beta = -.020$, $p < .01$). In addition, we find no further significant effects of different CSI types. Surprisingly, prior brand strength does not protect the company from the negative consequences. In Mexico, we even find evidence that strong brands are more likely to suffer from CSI ($\beta = -.0004$, $p < .01$).

Table 6: Cross-sectional Regressions: Drivers of Brand Strength

DV: $CAAR_{BrandStrength}[0, 5]$		**US**		**MEXICO**		**GERMANY**		**UK**		**FRANCE**	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Constant		.0038	(.0063)	.0090	(.0083)	.0114**	(.0055)	-.0036	(.0054)	.0183	(.0134)
CSI-specific drivers											
Local media coverage	-	-.0217**	(.0123)	-.0178	(.0117)	-.0155***	(.0069)	-.0158**	(.0087)	-.0456***	(.0159)
National CSI event	-	-.0015	(.0055)	-.0007	(.0076)	-.0098**	(.0052)	.0043	(.0052)	-.0077	(.0133)
National CSI event X foreign brand	-	-.0176**	(.0103)	-.0306***	(.0101)	.0033	(.0067)	-.0153***	(.0066)	.0132	(.0155)
CSI event type: Governance issue (*base*)		-	-	-	-	-	-	-	-	-	-
Social issue	-	.0015	(.0046)	-.0057	(.0051)	-.0111***	(.0037)	-.0055**	(.0032)	-.0003	(.0059)
Environmental issue	-	-.0202***	(.0060)	-.0085	(.0084)	-.0055	(.0058)	.0048	(.0056)	-.0072	(.0115)
Brand-specific driver											
Prior brand strength	+	-.0002	(.0001)	-.0004***	(.0001)	-.0001	(.0001)	.0001	(.0001)	-.0003	(.0002)
Control variables											
CSI brand history		.0028	(.0018)	.0020	(.0017)	.0007	(.0011)	-.0005	(.0012)	.0003	(.0018)
Product type: Services (*base*)		-	-	-	-	-	-	-	-	-	-
Durables		.0008	(.0061)	-.0024	(.0072)	.0006	(.0047)	-.0071	(.0049)	-.0041	(.0076)
Non-Durables		-.0030	(.0102)	-.0037	(.0117)	-.0003	(.0077)	.0109	(.0097)	-.0869***	(.0263)
Retailer		.0095	(.0060)	.0013	(.0062)	.0012	(.0039)	.0063	(.0041)	.0026	(.0090)
Foreign brand		.0092	(.0081)	.0047	(.0075)	-.0008	(.0045)	.0076	(.0051)	-.0104	(.0129)
Coefficient of determination		R^2 = .14		R^2 = .05		R^2 = .15		R^2 = .13		R^2 = .29	
Sample size (CSI events)		N = 173		N = 65		N = 141		N = 203		N = 92	

Notes: ** $p < .05$, *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else.

Table 7: Cross-sectional Regressions: Drivers of Brand Attention

DV: $CAAR_{BrandAttention}[0, 5]$		**US**		**MEXICO**		**GERMANY**		**UK**		**FRANCE**	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Constant		-.0023	(.0104)	.1163	(.1486)	-.0172	(.0093)	.0023	(.0091)	.0305	(.0253)
CSI-specific drivers											
Local media coverage	+	.0418***	(.0204)	-.1664	(.0983)	.0368***	(.0116)	.0698***	(.0146)	-.0495	(.0299)
National CSI event	+	.0013	(.0091)	-.0304	(.1470)	.0170**	(.0087)	-.0061	(.0088)	-.0005	(.0250)
National CSI event X foreign brand	+	.0097	(.0170)	.0083	(.1553)	.0041	(.0113)	.0188**	(.0112)	.0283	(.0292)
CSI event type: Governance issue (*base*)		-	-	-	-	-	-	-	-	-	-
Social issue	+	.0164**	(.0075)	- .0125	(.0432)	.0015	(.0063)	-.0068	(.0055)	-.0084	(.0112)
Environmental issue	+	.0056	(.0100)	-.0605	(.0910)	.0144	(.0097)	.0033	(.0095)	-.0440**	(.0217)
Brand-specific driver											
Prior brand strength	+ / -	.0001	(.0002)	-.0001	(.0011)	-.0003	(.0001)	.0004**	(.0002)	.0001	(.0004)
Control variables											
CSI brand history		-.0045	(.0029)	.0037	(.0170)	-.0011	(.0019)	-.0078***	(.0020)	-.0024	(.0034)
Product type: Services (*base*)		-	-	-	-	-	-	-	-	-	-
Durables		-.0032	(.0100)	.0334	(.0746)	.0035	(.0079)	.0048	(.0083)	.0173	(.0143)
Non-Durables		-.0178	(.0169)	-.0037	(.0555)	-.0035	(.0128)	.0182	(.0164)	-.0445	(.0495)
Retailer		-.0144	(.0099)	.0340	(.0483)	.0023	(.0066)	-.0005	(.0069)	.0020	(.0170)
Foreign brand		-.0041	(.0134)	-.0542	(.1492)	.0088	(.0075)	-.0153*	(.0086)	-.0113	(.0244)
Coefficient of determination		R^2 = .08		R^2 = .08		R^2 = .23		R^2 = .22		R^2 = 19	
Sample size (CSI events)		N = 173		N = 65		N = 141		N = 203		N = 92	

Notes: ** $p < .05$, *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else.

Cross-sectional analysis of the CSI effect on brand attention. As with the impact on brand strength, we find that media coverage is the essential driver of CSI events on brand attention. However, we find barely any further drivers of brand attention. For instance, only for consumers in the U.K. do we find that national CSI events caused by foreign brands receive significantly ($p > .05$) more attention than national CSI events caused by national brands (see Table 7).

Table 8: Cross-sectional Regressions: Drivers of Stock Return

DV: Cumulative abnormal stock returns in the event window 0 to 1		U.S. stock market (only US)		Local stock markets (without US)	
	Expected sign	Estimated Coefficient	(SE)	Estimated Coefficient	(SE)
Constant		-.0096	(.0092)	-.0016	(.0110)
Consumer responses to CSI					
Local consumer response					
Negative brand strength returns	-	-.1867**	(.0966)	-.0659**	(.0482)
Positive brand attention returns	+ / -	-.0280	(.0556)	-.0671	(.0591)
Interaction of brand strength and attention returns	-	-.6011	(2.0823)	-.3789	(.9243)
CSI-specific driver					
Local media coverage	-	.0020	(.0182)	-.0267**	(.0155)
Brand-specific driver					
Prior brand strength	+	.0003	(.0002)	.0005**	(.0002)
Control variables					
National CSI event		.0065	(.0070)	.0035	(.0059)
CSI event type: Governance issue (*base*)		-	-	-	-
Social issue		-.0033	(.0066)	-.0010	(.0065)
Environmental issue		-.0008	(.0077)	.0054	(.0078)
CSI brand history		-.0057**	(.0032)	.0009	(.0027)
Product type: Services (*base*)		-	-	-	-
Durables		-.0049	(.0072)	-.0103	(.0091)
Non-Durables		-.0110	(.0097)	no data	-
Retailer		.0044	(.0070)	-.0113	(.0088)
Brand name equal to company name		.0003	(.0055)	-.0024	(.0060)
Financial leverage		.0011	(.0020)	-.0011	(.0044)
Return on assets		-.0525	(.0433)	.0072	(.0530)
Market value of equity		5.1×10^{-12} ***	(1.8×10^{-12})	-1.5×10^{-11}	(2.6×10^{-11})
Coefficient of determination		$R^2 = .16$		$R^2 = .25$	
Sample size (CSI events):		N = 126		N = 91	

Notes: ** $p < .05$. *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else. We use bootstrapping specifications with 5,000 draws.

Cross-sectional analysis of the CSI effect on stock return. We also find variables driving the impact of CSI events on stock return (see Table 8). However, owing to small sample sizes we cannot estimate all regressions country-wise. Therefore, we estimate only a pure U.S. model and a model with all stock markets outside the U.S. First, and most

important, negative brand strength returns determine the impact of CSI events on stock return both on the U.S. market ($\beta_{U.S.}$ = -.187, p < .05) and on the local markets ($\beta_{LocalMarkets}$ = -.066, p < .05). Thus, the more negative the consumer response, the more negative the impact of CSI events on the stock market. We also applied a three-step mediation regression approach (Luo, Homburg, and Wiesecke 2010). We find that the impact of CSI on the U.S. stock markets is fully mediated by brand strength changes. However, the impact of CSI on the local markets is only partially mediated by brand strength changes (see Appendix 9). For the local markets, we find that media coverage has a direct effect on stock market reaction ($\beta_{LocalMarkets}$ = -.027, p < .05). Also, we find evidence that a strong brand protects a company from the negative consequences of stock market reactions ($\beta_{LocalMarkets}$ = .001, p < .05).

6.3 Robustness Checks

To further increase the confidence in the results, we conducted several robustness checks. Appendix 10.1 to 10.7 presents additional information and detailed results.

Alternative calculations of abnormal returns. We used the Fama-French four-factor model as an alternative approach to model the abnormal stock market returns. Further, we modeled the abnormal brand strength and brand attention returns by using industry-specific reference indices. Results stay constant (see Appendix 10.1).

Alternative estimation windows. To test whether the results are robust across alternative estimation windows, we re-estimated the CAARs based on 60-, 80- and 100-day windows. The results are consistent (see Appendix 10.2).

Alternative statistical test. Following prior research (Sorescu, Warren, and Ertekin 2017), to ensure robustness we used the Patell standardized residual test (Patell 1976), a standardized cross-sectional test (Boehmer, Muscumeci and Poulson 1991), the non-parametric rank test (Corrado 1989), and a generalized sign test (Cowan 1992). None of the tests suggests any other results (see Appendix 10.3).

Alternative coding of consumer perception. As an alternative approach, we measure brand strength and brand attention within a range of 0 to 100. Again, results do not lead to other conclusions (see Appendix 10.4).

Simultaneity issues of the media coverage variable. Endogeneity issues of the media coverage variable might also be related to our consumer analysis if journalists choose stories in a strategic way. For example, journalists may prefer reporting on strong brands as the fall in brand strength may be more likely to induce a noteworthy story. In our study, however, we control for a large number of crises and brand characteristics (e.g., prior brand strength) that may drive consumer perception as well as media coverage. We also conducted an instrumental-variable approach to ensure robustness. We cannot reject the exogeneity assumption according to the Wu-Hausman test (see Appendix 10.5).

Handling confounding events. We eliminated confounding events as they could lead to a serious estimation bias (McWilliams and Siegel 1997). This practice is common in published event studies (e.g., Warren and Sorescu 2017). For robustness reasons we leave the confounding events in our sample. The results are practically consistent (see Appendix 10.6).

Omitted variable bias. We added new variables to our cross-sectional regressions. Specifically, we added brand power dispersion (Luo, Raithel, and Wiles 2013) and a count variable to capture potential time effects. F-tests showed neither of the two variables to be relevant (see Appendix 10.7).

7 Discussion

7.1 Summary

Even though millions of dollars are invested into the development of successful brands and CSI events take place all over the world, very little research has examined cross-cultural differences in the consumer and shareholder perception of CSI. Our study identifies how CSI

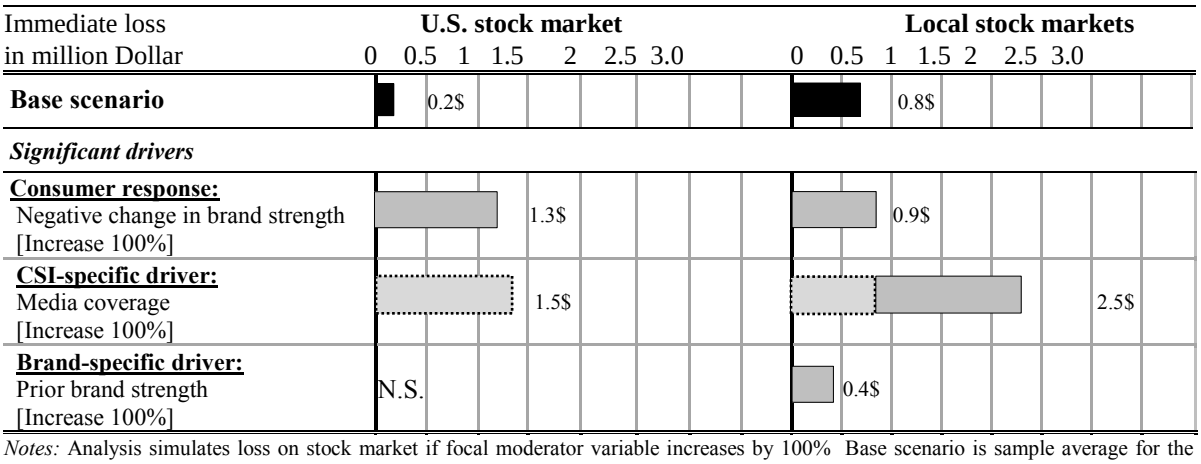
events can destroy brand strength and the financial reputation in several countries. First and most importantly, CSI events have a negative impact on brand strength in all analyzed countries. This effect does not differ between countries. This finding indicates the general value of ethical correctness in several regions of the world. In addition, consumers in all countries become aware of the CSI event as it affects brand attention. Thereby, media coverage is the essential driver of CSI events on consumers. In today's society, consumers face an overload of media stimuli. The more media report on an event, the greater the likelihood that specific information will be processed and interpreted by consumers. Furthermore, in countries such as the U.S., the U.K., and Mexico, where patriotism plays a pronounced role, national CSI events of foreign companies are more likely to be criticized than ethical misconduct of national companies. With regard to different CSI event types, as human dignity is topmost in the consumer's mind, social and environmental issues are more threatening to consumers than governance issues.

We show that consumer responses determine the impact of CSI events on stock return. For all analyzed stock markets, changes in brand strength determine changes in stock market reactions. This finding holds several implications for practice and research, as we discuss in the next sections. Surprisingly, we find country-specific differences of the direct effect of CSI events on stock return. While we find a negative main impact of CSI on the European stock markets, we do not find a negative main effect for the U.S. stock market. This result is remarkable because it is contradictory to capital market theory. The explanation may be that companies listed in Europe have a higher shareholder proportion of people who come from or identify themselves with these geographies. Consequently, investors in European markets may be more likely to be regionally attached to the people and exposed to the newspapers in these countries.

7.2 Financial Magnitude

To assess the financial significance of the estimation results, we set all variables at their sample mean and multiplied the estimated stock market-specific CAAR[0,1] with the average market value of equity. This approach yields the average immediate financial loss of a company on the stock market. If a CSI event occurs at a company that is primarily listed on local stock market, the immediate financial loss is \$800,000. On the U.S. market the financial loss decreases to \$200,000. The average losses seem low but are consistent with prior research on corporate crises (Flammer 2013). The explanation for this rather low financial effect may lie in the fact that our data sample consists of many "minor" CSI events (e.g., CSI events with very low media coverages). We also simulated the effects of the independent variables on the overall financial loss on the stock market. The differences in the effect strength are illustrated in Figure 2. Note that the drivers may have a direct or / and an indirect effect through changes in brand strength.

Figure 2: Financial Magnitude: Simulation of Effect Strengths



Notes: Analysis simulates loss on stock market if focal moderator variable increases by 100% Base scenario is sample average for the average loss (mean value for all moderating variables) multiplied by average market value across all companies; Direct effect; Indirect effect. We do acknowledge that there is an additional indirect effect of prior brand strength for the Mexican stock market not illustrated in the graph.

For example, a double as large negative brand strength effect leads to a financial loss of \$1,300,000 on the U.S. market, and \$900,000 on the local markets. If media coverage doubles (e.g., 10 instead of five media outlets report the CSI event), the average financial loss increases to \$1,500,000 in the U.S. and to \$2,500,000 in Europe.

7.3 Managerial Implications

Given the international scope of corporate activities, companies must know how their behavior is perceived in different countries (Maignan 2001). Most importantly, we show that CSI events have an impact on consumers in all analyzed countries. Thus, firms need to position themselves as socially responsible around the globe and act in a socially responsible manner. Companies also need to consider national particularities. Companies active in foreign markets should be aware that consumers of very patriotic countries are more likely criticize foreign than domestic competitors. Therefore, in very patriotic countries an appropriate practice may be to make use of local brand-name strategies. Further, companies should not let themselves be misled by lower ethical standards in developing countries. This study shows that CSI also affects consumers in Mexico.

Last, the essential driver of stock market reaction is the consumer response. Thus, this study highlights the need for companies to manage their relationships with consumers. Results of this study allow companies to specifically predict how changes in brand indices affect the financial value of the company.

7.4 Implications for Theory

This study also makes important theoretical contributions to the crisis literature. While it is well known that crisis events have an impact on consumer and financial metrics (e.g., Backhaus and Fischer 2016; Liu and Shankar 2015), much less is known about cross-cultural differences. We adapt the theory of cultural values to explain how the perception of CSI varies across countries. We show that patriotic countries are more likely to devaluate foreign brands.

Furthermore, our empirical results reveal that strong brands are not protected from negative consumer responses to CSI events. This finding contradicts prior empirical and theoretical research on product-harm crises (e.g., Cleeren, Dekimpe, and van Heerde 2013;

Liu and Shankar 2015), possibly for two reasons. *First*, consumers may be more emotionally attached to the social behavior of companies than to "rational" misconduct such as product recalls. *Second*, consumers may think that especially strong brands have the ability and duty to be socially responsible and thus blame a brand for CSI. This finding challenges the established theory that strong brands can be seen as a protective shield against crises.

7.5 Limitations and Further Research

While our study offers valuable insights on cross-cultural differences and drivers of CSI events, it also has limitations that offer avenues for further research. The present research focused on consumers' and shareholders' overall perception of CSI, but did not link perception to actual sales. Unfortunately, data on actual purchase behavior are not readily available for such a large number of brands across five countries.

Further, even though this study represents the largest cross-country study conducted in the field, further research could use the theory of cultural values to also explain differences among countries in South America, Africa, or Asia. Last, we extended the application range of event studies by analyzing a brand-specific index. Further research could validate and replicate this new way of investigating consumer perception metrics.

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APPENDIX PAPER II

THE IMPACT OF CORPORATE SOCIAL IRRESPONSIBILITY EVENTS ON CONSUMER AND SHAREHOLDER PERCEPTION: A COMPARISON OF FIVE COUNTRIES

In this Appendix, we provide the following information:

1. Literature review on the impact of CSI on stock return
2. An overview of the 77 media outlets used in this study
3. Details of our search strategy identifying CSI events
4. Additional information on how we identified confounding events
5. Additional information on consumer perception data
6. External validity of brands in dataset
7. Simultaneity issues of media coverage variable and stock market reaction
8. Additional main effect analyses
9. Additional mediation analyses
10. Various robustness checks (Appendix 10.1 to Appendix 10.7)

Appendix 1: Literature Overview on the Impact of CSI on Stock Return

The main impact of CSI on stock return is not clear. Some studies find a negative impact on stock return (e.g., Davidson and Worrel 1988; Flammer 2013, Klassen and McLaughlin, 1996, Wright et al. 1995), some investigations find no impact (e.g., McWilliams and Siegel 1997; Groening and Kanuri 2013). How and why these conflicting differences occur across these studies is a challenging question. Several explanations may be possible. First and most important, none of these studies investigates how the consumer response to a CSI event may determine the effect on stock return. However investors make decisions on the basis of future cash flows which are grounded in consumer perceptions of CSI. Furthermore, many of the prior studies suffer from small sample sizes or a limitation to one type of CSI. A.1 gives an overview of these studies and positions this examination relative to other investigations.

Table A.1
Structured Literature Overview

Authors (in chronological order)	**Type of CSI**	**AR**	**N**	**Country of stock market**	**Consumer reaction to CSI**
Davidson and Worrell (1988)	Corporate illegalities	-.87%	96	US	X
Davidson, Worrell, and Cheng (1994)	Penalties by the Safety and Health Administration	-.56%	47	US	X
Wright et al. (1995)	Employee discriminations	-.47%	35	US	X
Klassen and McLaughlin (1996)	Environmental issues	-.82%	22	US	X
Rao (1996a)	Employee discriminations	- 5.34%[a]	14	US	X
Rao (1996b)	Environmental issues	-5.29%[a]	14	US	X
Rao and Hamilton (1996)	Environmental, social, and governance issues	-5.39% [a]	58	US	X
Gunthorpe (1997)	Governance issues	-1.33%	69	US	X
McWilliams and Siegel[b] (1997)	Employee discriminations	-.37%[N.S.]	35	US	X
Arnold and Engelen (2007)	Social and governance issues	-.86%	57	Belgium, NL	X
Flammer (2013)	Environmental issues	-.65%	159	US	X
Groening and Kanuri (2013)	Environmental, social, and governance issues	.10%[N.S.]	357	US	X
This paper	Environmental, social, and governance issues	US = -.02% [N.S.] MX = .44% [N.S.] GER = -1.10% UK = -1.29% FR = -1.27%	**227**	**US** **MX** **GER** **UK** **FR**	✓

Notes: Not significant (N.S.), if $p < .10$ (two-sided tests); [a] monthly level; [b] replicates the study of Wright et al. (1995) but controls for confounding events.

Appendix 2: Overview of Media Outlets

Table A.2
Media Outlets Used in the Empirical Setting

Country	Name	Type	Political Orientation
MX	El Norte	Daily	Center-right
MX	Mural Expresión de Jalisco	Daily	Center-right
MX	Reforma	Daily	Center-right
MX	El Universal	Daily	Center
MX	Notimex	Online	Center
MX	El Financiero	Online	Center
MX	La Jornada	Online	Left
MX	Economista	Online	Center-right
MX	La Cronica De Hoy	Online	Center-right
MX	Milenio/ El Diario De Monterrey	Online	Center
MX	CNN Expansion	Online	Center
MX	El Sol de Mexico	Online	Right
MX	Excelsior	Online	Center-right
GER	Süddeutsche Zeitung	Daily	Center-Left
GER	Die Tageszeitung	Daily	Left
GER	Frankfurter Rundschau	Daily	Left
GER	Die Welt	Daily	Right
GER	Die Zeit	Weekly	Center-Left
GER	Spiegel	Weekly	Center
GER	Stern	Weekly	Center-right
GER	Handelsblatt	Daily	Center-right
GER	Frankfurter Allgemeine	Daily	Center-right
GER	Welt Online	Online	Left
GER	Zeit Online	Online	Center-Left
GER	Spiegel Online	Online	Center
GER	Handelsblatt Online	Online	Center-right
GER	Bild.de	Online	Right
GER	FAZ.net	Online	Center-right
US	USA Today	Daily	Center-right
US	Wall Street Journal	Daily	Right
US	The New York Times	Daily	Left
US	Daily News (New York)	Daily	Center-right
US	The New York Post	Daily	Right
US	The Washington Post	Daily	Center-Left
US	The Atlantic	Monthly	Left
US	The Denver Post	Daily	Left
US	National Journal	Weekly	Center
US	CNN.com	Online	Center
US	MSNBC.com	Online	Left
US	USNews.com	Online	Center
US	Washington Post.com	Online	Center-Left
US	NYT.com	Online	Left
US	Business Review USA	Online	Center

Country	Name	Type	Political Orientation[1]
UK	Euroweek	Weekly	Center
UK	Financial Times	Daily	Center-right
UK	Morning Star	Daily	Left
UK	The Daily Mail	Daily	Right
UK	The Daily Star	Daily	Center
UK	The Daily Telegraph	Daily	Right
UK	The Evening Standard	Daily	Right
UK	Daily Express	Daily	Right
UK	The Guardian	Daily	Left
UK	The Independent	Daily	Center-Left
UK	The Mirror	Daily	Left
UK	The Observer	Weekly	Center-Left
UK	The (Sunday) People	Weekly	Center
UK	guardian.co.uk	Online	Left
UK	Independent.co.uk	Online	Center-Left
UK	MailOnline (dailymail.co.uk)	Online	Right
UK	telegraph.co.uk	Online	Right
FR	Le Parisien + Le Firago Economie	Daily	Center-right
FR	Aujourd´hui en France	Daily	Right
FR	Le Figaro	Daily	Right
FR	Le Monde	Daily	Center-Left
FR	Ouest France	Daily	Center-right
FR	Sud Ouest	Daily	Center
FR	La voix du nord	Daily	Center-right
FR	Le Télégramme	Daily	Center
FR	La Montagne	Daily	Center-Left
FR	La nouvelle République du Center Ouest	Daily	Center
FR	L´Express	Weekly	Center
FR	Le Point	Weekly	Right
FR	Les Echos	Daily	Right
FR	latribune.fr	Online	Right
FR	Lemonde.fr	Online	Center-Left
FR	Leparisien.fr	Online	Center-right
FR	Lepoint.fr	Online	Right
FR	Lesechos.fr	Online	Right

Notes: Official statistics used are Eurotopics (BpB), Worldpress.org, Lakeland College, Auswärtiges Amt. In addition 24 expert interviews were conducted.

Appendix 3: Criteria to Identify CSI Events

We set up relevant criteria (see below) to identify CSI events:

I.) CSI event must be in line with the definitions of CSI

Business actions are considered as socially irresponsible if they go against moral norms and values and are related to environmental issues, governance issues, or social issues (e.g., Backhaus and Fischer 2016; Lange and Washburn 2012).

II.) CSI must be in line with the definition of a crisis event

Crisis events are unexpected events that threaten a brand's perceived ability to deliver benefits and thereby possibly weakening brand equity (Ahluwalia, Burnkrant, and Unnava 2000; Pullig, Netemeyer, and Biswas 2006; Dawar and Lei 2009; Dutta and Pullig 2011).

III.) CSI event must correspond to one of the 3 CSI event types

Governance issue	Social issue	Environmental issue
Management misconduct: retailing to corporate governance or social norms and societal rules • Transparency violations • Consumer fraud with regard to - Sales practices - Pricing policies • Corruption - Bribery - Money laundering - Investment controversy - Tax disputes - Breach of trust	Violation of compliance with human rights and conditions of employment • Violations of employee relations with respect to - Discrimination - Benefits and wages - Diversity standards - Local working conditions - Foreign labor issues • Human rights violations	Violation and endangerment of environmental surroundings • Violation and endangerment of nature • Violation and endangerment of animals / wildlife

Appendix 4: Classification of Confounding Events

To identify confounding events, we check media outlets and Google Search. We cover financial-related events, consumer-related events, or other important events relating to the brand (e.g., death of former CEOs) that took place in a time window of 3 days before and 7 days after the CSI event took place. See Table A.4 for a structured overview about the types of confounding events we identified. We provide examples of headlines from the *Wall Street Journal* for each confounding event type.

Table A.4
Media Outlets Used in the Empirical Setting

Type of confounding event		**Examples from *Wall Street Journal***	
Financial-related confounding events		**Headline**	**Date**
Earning announcements		Nike´s profit up 20%	(23/12/2015)
Mergers and acquisitions activities		Toyota invests in artificial-intelligence company	(18/12/2015)
Joint venture announcements		Morgan Stanley, Mitsubishi form joint venture	(01/07/2009)
Large investments		Audi plans to invest $ 29 billion over 5 years	(12/12/2014)
Declaration of dividends		Williams to reduce dividend by 60%	(02/08/2016)
Consumer-related events			
Product	New product introductions	Apple brings out two new iPhones	(11/09/2013)
	Product recalls	Fiat Chrysler recalls 1.8 million pickups	(23/12/2017)
Price	Price increases	Costly ingredients prompt chipotle price increase	(18/04/2014)
	Price discounts/promotions	Xbox 360 price is reduced in Japan	(02/09/2008)
Distribution	Changes in distribution networks	Google, AP Reach Distribution Deal	(31/08/2010)
Communication	Major news on sponsorships	Manchester United gets sponsor offer from Adidas	(09/07/2014)
	Testimonial related news	Nike drops Pacquiao after anti-gay slurs	(12/02/2016)
	Major news on advertising	Disney launches TV push to lure visitors to its parks	(21/10/2001)
Other potentially relevant brand-related news			
Organizational changes	Layoffs	Deutsche Bank confirms plan to cut jobs	(25/05/2018)
	Key executive changes	Amtrak hires ex-Delta chief as new DEO	(27/06/2018)
	Major government contracts	BP wins $43 Million pentagon supply contract	(17/06/2017)
CSR initiatives	CSR-related news	Coca-Cola set goal to recycle all bottles	(22/01/2018)
	Huge donations	Goldman to donate $20 million to nonprofits	(09/12/2010)
External shock	Industry shock	GE braces for oil-industry shock as earnings jump	(24/01/2015)
Miscellaneous		Apple CEO jobs undergoes cancer surgery	(02/08/ 2004)

Note: We specifically also search for consumer-related confounding events as we analyze consumer perception.

Appendix 5: Details on Consumer Perception Data

In this chapter, we give some additional information on the operationalization of the consumer perception data. Brand strength is measured based on the YouGov BrandIndex dimensions perceived quality, perceived value, consumer satisfaction, reputation, general impression, and recommendation (see Table A.5). Prior research (e.g., Luo, Raithel, and Wiles 2013) has shown that these six dimensions pass all tests on item reliability and construct validity.

Table A.5
YouGov Dimensions

Dimension (underlying construct)	Positive question	Negative question
Impression (Brand strength)	Overall, for which of the following brands do you have a positive impression?	Now for which of the following brands do you have an overall negative impression?
Quality (Brand strength)	Which of the following brands do you think represents good quality?	Now which of the following brands represents poor quality?
Value (Brand strength)	Which of the following brands do you think represents good value for money? By that we don't mean "cheap," but that the brands offer a customer a lot in return for the price paid.	Now which of the following brands do you think represents poor value for money? By that, we don't mean "expensive," but that the brands do not offer a customer much in return for the price paid
Reputation (Brand strength)	Imagine you were looking for a job (or advising a friend looking for a job).Which of the following brands would you be proud to work for. Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for.	Now which of the following brands would you be embarrassed to work for? Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for.
Satisfaction (Brand strength)	For which of the following brands would you say that you are a "satisfied customer"?	For which of the following brands would you say that you are a "dissatisfied customer"?
Recommendation (Brand strength)	Which of the following brands would you recommend to a friend or colleague?	And which of the following brands would you tell a friend or colleague to avoid?
Attention (Brand attention)	About which of the following brands have you recently heard anything positive either through media news, advertising, or word-of-mouth?	About which of the following brands have you recently heard anything negative either through media news, advertising, or word-of-mouth?

Note: Questions are translated into English. All questions are asked in the language of the country.

YouGov collects the data as follows. First, respondents select all brands for a given industry sector for which they agree to either a positive question or a negative question. All other brands are rated as neutral. Thus, in line with established research on attitudinal scales (Bearden, Netemeyer, and Haws 2011), a brand is rated positively, neutrally, or negatively. The final brand strength metric is then transformed to an index ranging from 100 to 300. Formula (1) represents our calculations. NPosR represents the number of positive responses, NNeuR represents the number of neutral responses, and NNegR represents the number of negative responses for dimension *d* and for brand *b*.

$$\text{BrandStrength}_b = \frac{\sum_{d=1}^{6}(\text{NPosR}_\text{d}) \cdot 3 + \sum_{d=1}^{6} \text{NNeuR}_d \cdot 2 + \sum_{d=1}^{6} \text{NNegR}_d \cdot 1}{\sum_{d=1}^{6} \text{Total Number of Responses}_d} \cdot 100 \quad (1)$$

Brand attention is measured on the basis of only one dimension (see table above). It measures whether people have recently heard either nothing or something positive or / and negative about a brand and thus ranges from 200 to 300. Formula (2) represents our calculations.

$$\text{BrandAttention}_b = \frac{(\text{NPosR} + \text{NNegR}) \cdot 3 + \text{NNeuR} \cdot 2}{\text{Total Number of Responses}} \cdot 100 \quad (2)$$

For the German, U.K., French, U.S., and Mexican markets, YouGov monitors about 2,600 brands in 20 industry sectors. To ensure the comparability of our brand metrics across the countries, we used slightly different but overlapping time frames analyzing CSI events. We took this approach for mainly two reasons. First, YouGov has started to collected data at different points in time in different countries. Second, YouGov changed its procedure on how to collect the data at different points in time in different countries. We employ the data collection up to the point when YouGov changed it and from the beginning of when YouGov started to collect the data. Thus, for each country we consider the following time frames: Germany (01.2008 to 12.2012), U.S. (01.2009 to 11.2012), U.K. (01.2009 to 07.2013), Mexico (05.2011 to 05.2014), and France (09.2011 to 05.2013).

Appendix 6: External Validity of Brands in Dataset

Table A.6

Structural Differences across Brand Universe and CSI Event Sample

	Germany			United States			United Kingdom			France			Mexico		
	Brand Universe Mean	***CSI sample*** Mean	***t-test / χ^2-test*** *p*-value	***Brand Universe*** Mean	***CSI sample*** Mean	***t-test / χ^2-test*** *p*-value	***Brand Universe*** Mean	***CSI sample*** Mean	***t-test / χ^2-test*** *p*-value	***Brand Universe*** Mean	***CSI sample*** Mean	***t-test / χ^2-test*** *p*-value	***Brand Universe*** Mean	***CSI sample*** Mean	***t-test / χ^2-test*** *p*-value
Brand strength	8.06	12,90	.01	11.95	16.64	.00	10.87	11.46	$.45^{N.S.}$	-	-	-	-	-	-
Brand attention	13.3	20.49	.00	15.546	25.35	.00	9.96	14.24	.00	-	-	-	-	-	-
Advertising spending (€ in thousand)	829,579	1,094,313	$.15^{N.S.}$	-	-	-	-	-	-	-	-	-	-	-	-
Industry:															
Automobiles and Components	.04	.12	.00	.04	.12	.00	.03	.08	.00	.08	.15	.02	.11	.13	$.66^{N.S.}$
Banks	.06	.06	$.96^{N.S.}$	.04	.12	.00	.06	.11	.00	.09	.16	.02	.04	.15	.00
Consumer Durables and Apparel	.05	.05	$.89^{N.S.}$	.11	.11	$.94^{N.S.}$	.05	.08	$.15^{N.S.}$	-	-	-	-	-	-
Consumer Electronics	.05	.12	.03	.03	.00	.03	.05	.05	$.95^{N.S.}$	.08	.11	$.32^{N.S.}$	.03	.10	.01
Consumer Services	.04	.05	$.68^{N.S.}$	.05	.03	$.33^{N.S.}$	.09	.10	$.82^{N.S.}$	.06	.09	$.19^{N.S.}$	.03	.05	$.48^{N.S.}$
Food and Staples Retailing	.05	.06	$.52^{N.S.}$	.13	.08	$.09^{N.S.}$	.06	.10	.02	.08	.06	$.39^{N.S.}$	.03	.08	.10
Food, Beverage and Tobacco	.23	.11	.01	.22	.05	.00	.26	.06	.00	.21	.04	.00	.38	.20	.01
Household and Personal Products	.06	.01	.04	.07	.03	$.07^{N.S.}$	.06	.01	.00	-	-	-	.23	.05	.00
Retailing	.18	.14	$.38^{N.S.}$	.11	.08	$.30^{N.S.}$	.06	.09	.04	.08	.10	$.59^{N.S.}$	.05	.05	$.94^{N.S.}$
Software and Services	.10	.08	$.57^{N.S.}$	.08	.10	$.31^{N.S.}$	.12	.11	$.73^{N.S.}$	.09	.10	$.69^{N.S.}$	.04	.08	$.19^{N.S.}$
Telecommunication Services	.05	.04	$.64^{N.S.}$	.04	.13	.00	.05	.08	.03	.07	.06	$.61^{N.S.}$	.01	.08	.00
Transportation	.05	.11	.01	.06	.11	.03	.08	.08	$.92^{N.S.}$	.09	.11	$.39^{N.S.}$	-	-	-
Utilities	.05	.04	$.76^{N.S.}$	.02	.03	$.67^{N.S.}$	.03	.05	$.05^{N.S.}$	.06	.04	$.35^{N.S.}$	.05	.05	$.90^{N.S.}$

Notes: Reference data on advertising spending only for German data set available; individual reference data on brand strength and attention only for German, U.S., and U.K. data set available.

Appendix 7: Endogeneity Issues

We identify media coverage as an independent variable that may raise simultaneity issues because a strong negative impact on stock return may attract more media attention. We employ instrumental-variable (IV) estimation with exogenous information that identifies the variable media coverage (Wooldridge 2016). Specifically, we regress media coverage on Google Trends. Google Trends describes the volume of people who search for a specific brand using the online search engine Google (Stephen and Galak 2012). Journalists and editors use Google Trends as a "radar" to figure out which topics are currently demanded by consumers. We measure Google Trends one month prior the event date. Google Trends is thus by construction not directly related to the immediate reaction of a present CSI event on stock return. The instrument turns out to be strong according to the incremental F-statistic (Angrist and Pischke 2009). However, on the basis of the Hausman-Wu test (Wooldridge 2015), we cannot reject the exogeneity assumption for media coverage. Since IV estimation produces less efficient estimates than standard estimation, we do not focus on IV estimation results. However, we report them in full detail including statistics on the strength and validity of instruments in Table A.7.1 for the U.S. stock market and in Table A.7.2 for the stock markets outside the U.S.

As an additional way to deal with the potential endogeneity of the media coverage variable, we conduct a content analysis and identify the articles that mentioned the stock market reaction. We eliminate the media outlets that report about the stock market reactions and operationalize the media coverage variable on the basis of the remaining media outlets. The intuition is the fact that a journalist would be very likely to include the stock market reaction in the editorial content of an article if it is a crucial argument to come up with a story. The results are consistent with our reported results (see Tables A.7.1 and A.7.2).

Table A.7.1
Test for Endogeneity: U.S. Stock Market

DV: Cumulative Abnormal Stock Price Returns (U.S. stock market)		IV-Analysis (U.S. stock market)				Additional analysis (U.S. stock market)	
		2SLS results		Hausman-Wu test estimation results		New operationalization of media coverage	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Constant		.0929	(.066)	.0928	(.067)	-.0090	(.009)
Residuals saved from prediction equation		-	-	.3558	(.237)	-	-
Consumer response to CSI							
Negative brand strength returns	-	-.1517**	(.090)	-.1525	(.094)	-.1796**	(.094)
Positive brand attention returns	+ / -	-.0237	(.052)	-.0248	(.056)	-.0177	(.057)
Interaction of strength and attention returns	-	-.7764	(2.039)	-.7675	(2.101)	-.6876	(2.074)
CSI-specific driver							
Local media coverage (*Predicted*)	-	-.3559**	(.233)	-	-	-	-
Local media coverage (*Original*)		-	-	-.3549**	(.236)	-	-
Local media coverage (*New variable*)		-	-	-	-	-.0065	(.019)
Brand-specific drivers							
Prior brand strength	+	.0002	($.2x10^{-3}$)	.0002	($.2x10^{-3}$)	.0003	($.2x10^{-3}$)
Control variables							
National CSI event		.0020	(.001)	.0020	(.001)	.0069	(.007)
CSI event type:							
Violation of unfair practices *(base)*		-	-	-	-	-	-
Violation of human rights		-.0035	(.007)	-.0035	(.007)	-.0035	(.007)
Violation of environment		-.0062	(.008)	-.0061	(.008)	-.0009	(.008)
CSI event history		-.0055**	(.003)	-.0056**	(.003)	-.0052	(.003)
Brand type: Services (*base*)		-	-	-	-	-	-
Durables		-.0065	(.007)	-.0065	(.007)	-.0052	(.007)
Non-Durables		-.0141	(.010)	-.0141	(.010)	-.0109	(.009)
Retailer		.0063	(.007)	.0063	(.007)	.0044	(.007)
Brand name equal to company name		-.0009	(.005)	-.0010	(.006)	.0005	(.006)
Financial leverage		.0025	(.002)	.0025	(.002)	.0012	(.002)
Return on assets		-.0397	(.039)	-.0400	(.040)	-.0504	(.042)
Market value of equity		$5.0x10^{-12}$	($1.7x10^{-12}$)	$4.9x10^{-12}$***	($1.7x10^{-12}$)	$5.1x10^{-12}$	($7.7x10^{-15}$)
Coefficient of determination /Sample size (CSI events)		R^2 = .214 / N = 126		R^2 = .214 / N = 126		R^2 = .160 / N = 126	
1st stage regression based on IV variable: Google Trends							
Incremental F-statistic (for IV analysis):.12.86							

Notes: ** $p < .05$, *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else; 2SLS = two-stage least square; We use bootstrapping specifications with 5,000 draws.

Table A.7.2
Test for Endogeneity: Local Stock Market

DV: Cumulative Abnormal Stock Price Returns (Local stock markets)		IV-Analysis (Local stock markets)				Additional analysis (Local stock markets)	
		2SLS results		Hausman-Wu test estimation results		New operationalization of media coverage	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Constant		-.0003	(.023)	.0134	(.027)	-.0011	(.011)
Residuals saved from prediction equation		-	-	.0520	(.084)	-	-
Consumer response to CSI							
Negative brand strength returns[1]	-	-.0672**	(.053)	-.0669**	(.048)	-.0668**	(.048)
Positive brand attention returns	+ / -	-.0753	(.062)	-.0689	(.061)	-.0677	(.060)
Interaction of strength and attention returns	-	-.4059	(1.020)	-.3649	(.935)	-.3782	(.902)
CSI-specific driver							
Local media coverage (*Predicted*)	-	-.0427	(.071)	-	-	-	-
Local media coverage (*Original*)		-	-	-.0789	(.088)	-	-
Local media coverage (*New variable*)		-	-	-	-	-.0277**	(.016)
Brand-specific drivers							
Prior brand strength	+	.0004**	($.2x10^{-3}$)	.0005**	($.2x10^{-3}$)	.0005**	($.2x10^{-3}$)
Control variables							
National CSI event		.0031	(.006)	.0041	(.006)	.0034	(.006)
CSI event type:							
Violation of unfair practices *(base)*							
Violation of human rights		.0028	(.007)	-.0013	(.007)	-.0008	(.006)
Violation of environment		.0043	(.008)	.0047	(.008)	.0053	(.008)
CSI event history		.0006	(.003)	.0009	(.003)	.0009	(.003)
Brand type: Services (*base*)							
Durables		-.0063	(.009)	-.0109	(.009)	-.0106	(.009)
Non-Durables		-	-	-	-		
Retailer		-.0072	(.008)	-.0116	(.009)	-.0116	(.009)
Brand name equal to company name		-.0046	(.006)	-.0024	(.006)	-.0025	(.006)
Financial leverage		-.0004	(.004)	-.0014	(.005)	-.0012	(.004)
Return on assets		.0173	(.056)	.0046	(.054)	.0055	(.053)
Market value of equity		$-3.7x10^{-12}$	($2.5x10^{-11}$)	$-1.3x10^{-11}$	($2.7x10^{-11}$)	$-1.7x10^{11}$	($2.6x10^{-11}$)
Coefficient of determination / Sample size (CSI events)		R^2 = .217 / N= 91		R^2 = .263 / N= 91		R^2 = .262 / N= 91	
1st stage regression based on IV variable: Google Trends							
Incremental F-statistic (for IV analysis): 12.86							

Notes: ** $p < .05$, *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else; 2SLS = two-stage least square; We use bootstrapping specifications with 5,000 draws.

Appendix 8: Main Effect Analysis

To test whether the main effects of CSI events on brand strength and brand attention differ across countries, we conduct an analysis of variance (ANOVA). Dependent variables are the cumulative abnormal brand strengths returns and brand attention returns. Comparing the countries as the main factor, we include all control and moderating variables as covariates. The results (see Table A.8.1) suggest no differences on the effects of CSI on consumer perception across countries.

Table A.8.1
Main Effect across Countries (ANOVA)

ANOVA	**DV: Abnormal Brand Strength Returns**		**DV: Abnormal Brand Attention Returns**	
	F-Value	Significance (*p*-value)	F-Value	Significance (*p*-value)
Corrected model	2.620	.001	3.245	.000
Constant Term (Countries)	.012	.913	.000	.983
CSI-specific covariates				
Local media coverage	8.708	.003	19.518	.000
National CSI event	2.408	.121	.170	.680
National CSI event x foreign brand	.216	.642	4.661	.031
CSI event type: Social issue	.182	.669	.019	.891
Governance issue	4.139	.042	.216	.642
Brand-specific covariate				
Prior brand strength	.800	.371	.176	.675
Further covariates				
CSI event history	.012	.913	9.899	.002
Product type: Durables	.807	.369	.156	.693
Non-durables	2.475	.116	.026	.872
Retailer	2.985	.085	.081	.776
Foreign brand	2.979	.085	1.384	.240
Coefficient of determination	R^2 = .06		R^2 = .07	
Sample size (CSI events)	N[a] (CSI events) = 674		N[a] (CSI events) = 674	

Notes: We weighted each observation with a normed variance, i.e., the sample size of respondents per country of a brand within the event window. We thereby control for a potential measurement bias of the CARs due to heterogeneous YouGov sample sizes across countries;
[a] CSI events are counted country-wise.

Appendix 9: Three-step Mediation Approach

To test the mediation role of brand strength changes in the impact of CSI events on stock return, we follow the three-step mediation regression approach that Baron and Kenny (1986) recommend. This approach has been applied intensively in prior research (e.g., MacKinnon, Fairchild, and Fritz 2007; Luo, Homburg, and Wieseke 2010). In step 1, we regress the constant against the abnormal stock market returns. In step 2, we regress the constant and the abnormal brand strength returns on the abnormal stock market returns. In step 3, we regress the constant against abnormal brand strength returns.

We applied the mediation approach separately for the U.S. stock market and for the stock markets outside the U.S. Table A.9.1 gives an overview of the steps conducted.

Table A.9.1
Mediation Analysis

Steps of mediation analysis		U.S. stock market	Local stock markets
Step 1: Impact of CSI events on stock returns	We show that there is a relationship between CSI events and stock return. This step establishes that there is an effect that may be mediated.[1]	Effect is not significant β = -.0002 Std. error: .0029 *p*-value: .9439	Effect is significant β = -.0101 Std. error: .0024 *p* -value: .0001
Step 2: Impact of CSI events on brand strengths	We show that there is a relationship between CSI events and brand strengths. In this step the mediator is treated as if it was an outcome variable.	Effect is significant β = -.00471 Std. error: .0019 *p* -value: .0146	Effect is significant β = -.0058 Std. error: .0016 *p* -value: .0002
Step 3: Impact of brand strength changes on stock return	We show that brand strength changes affect stock return. The causal variable (constant) is controlled for[2]. For the case of a full mediation, the constant turns to be insignificant.	Brand strength changes are significant β = -.1640 Std. error: .0828 *p* -value: .0476 Constant is not significant β = .001 Std. error: .0023 *p* -value: .7930	Brand strength changes are significant β = -.0499 Std. error: .0365 *p* -value: .0772 Constant is significant β = -.0095 Std. error: .0023 *p* -value: .0120

Notes: [1] If the relationship turns to be insignificant, there is still the possibility of an inconsistent mediation (e.g., MacKinnon, Fairchild, and Fritz 2007). [2] In this model, we have not included further covariates. For the full model, see Table 8 in the paper. We note that the constant also turns to be insignificant for the local stock market analysis if we control for further variables. We conducted two-sided t-tests.

Appendix 10: Various Robustness Checks

Appendix 10.1: Alternative Calculations of Abnormal Returns

To ensure robust calculation of the stock market returns, we use the Fama-French model (Carhart 1997; Fama and French 1993) in the U.S., Germany, and the U.K. as follows:

$$R_{it} - R_{ft} = \alpha_{0i} + \beta_{1i}(R_{mt} - R_{ft}) + \beta_{2i}SMB_t + \beta_{3i}HML_t + \beta_{4i}MOM_t$$

where R_{it} are stock returns for firm *i* in time *t*, R_f is the risk-free rate, R_m are average market returns. SMB are size effects, HML are value effects, MOM are Carhart's momentum effects, and α_{0i} is the intercept. We received data for the Fama-French factors and the momentum from http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html for the U.S. We received data from Gregory, Tharayan, and Christidis (2013) for the U.K. and from Brückner et al. (2015) for German data. Table A.10.1.1 shows that the results are highly consistent with the results of our main model. Through restrictions in data availability, we can only run these additional analyses for a subsample of countries.

Table A.10.1.1
Fama-French Calculations

DV: Abnormal stock price returns in percentage						
	US		Germany		UK	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.07		-.15		-.17	
-3	-.12		-.34		-.86***	
-2	.02		-.23		-.21	
-1	-.07		-.25		-.38	
0	-.22	-.22	-.89***	-.89***	-.56**	-.56**
1	.16	-.06	.17	-.72	-.58	-1.14**
2	.24	.18	-.31	-1.03	.09	-1.05
3	-.22	-.04	.25	-.78	-.10	-1.15
4	.06	.02	.61	-.17	-.25	-1.40
5	.13	.14	-.12	-.28	-.12	-1.52
	N (CSI events) = 126 N (brands) = 70		N (CSI events) = 14 N (brands) = 5		N (CSI events) = 23 N (brands) = 12	

Notes: ** $p < .05$, *** $p < .01$ (one-sided t-test); [a] Does not add up as some CSI events or brands are observed in several countries.

To ensure robustness of the brand strength and brand attention returns, we use industry-specific brand strength and brand attention indices to model abnormal returns. We received such additional data only for the U.S., German, and U.K. datasets. We make use of the market model proposed by Brown and Warner (1985) by including industry-specific (*k*) market returns R_{mtk}. The industry market returns are based on the average brand-strength values (alternatively brand-attention values) across the brands within a product category. The brands are classified by Global Industry Classification Standard into 12 product categories: Automobiles and Components, Banks, Consumer Durables and Apparel, Consumer Electronics, Consumer Services, Food and Staples Retailing, Food, Beverage and Tobacco, Household and Personal Products, Retailing, Software and Services, Telecommunication Services, Transportation, and Utilities. Table A.10.1.2 shows the results. These are highly consistent with the reported results.

Table A.10.1.2
Alternative Calculations of Abnormal Returns (Consumer Analysis)

(I) DV: Abnormal brand strength returns in percentage

	US		Germany		UK	
t	AAR	CAAR	AAR	CAAR	AAR	CAAR
-4	.04		-.11		-.13	
-3	-.15		.04		.04	
-2	-.07		-.27**		-.10	
-1	-.02		.08		.05	
0	-.06	-.06	-.23	-.23	-.26	-.26**
1	-.34**	-.40***	-.19	-.42***	-.12	-.37***
2	.13	-.26	-.07	-.50***	.20	-.17
3	-.31**	-.57***	.11	-.39***	-.16	-.33***
4	.39**	-.18	.10	-.29**	-.04	-.36***
5	-.29**	-.47***	-.12	-.40***	-.08	-.44***
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107	

(II) DV:Abnormal brand attention returns in percentage

	US		Germany		UK	
t	AAR	CAAR	AAR	CAAR	AAR	CAAR
-4	-.49		-.11		-.28	
-3	.01		.32		.29	
-2	-.03		.16		-.07	
-1	.13		-.02		.04	
0	.12	.12	.64***	.64***	.85***	.85***
1	.80***	.91***	-.03	.61***	.48***	1.33***
2	-.18	.73***	-.20	.42**	-.29	1.04***
3	-.04	.69**	.49**	.91***	-.13	.92***
4	.01	.70**	-.27	.64***	.07	.99***
5	.07	.77***	.01	.65***	-.24	.76***
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107	

Notes: ** p <.05, *** p <.01 (one-sided t-test); [a] Does not add up as some CSI events or brands are observed in several countries. In t = 0 CSI event appears in the news.

Appendix 10.2: Alternative Estimation Windows

Table A.10.2.1
Estimation Window of 60 Days as Example

(I) DV: Abnormal brand strength returns in percentage

	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	.01		-.14		.01		-.08		-.13	
-3	-.08		4.19		.06		.01		.01	
-2	-.10		-1.95		-.32**		-.11		.00	
-1	.01		1.72		.08		.03		-.04	
0	-.07	-.07	-2.09	-2.09	-.22	-.22	-.27**	-.27**	-.15	-.15
1	-.40**	-.48***	-3.30	-5.40**	-.21	-.43***	-.08	-.35***	-.60	-.75***
2	.24	-.24	3.68	-1.72	-.08	-.51***	.11	-.24	.21	-.54**
3	-.26	-.50***	-1.89	-3.61	.08	-.44***	-.09	-.33**	.34	-.20
4	.42**	-.08	.47	-3.14	.09	-.34**	-.01	-.34***	-.28	-.48
5	-.36**	-.43**	1.79	-1.35	-.12	-.46***	-.10	-.44***	-.23	-.71***
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	

(II) DV: Abnormal brand attention returns in percentage

	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.56		-2.03		.00		-.28		.17	
-3	.04		.35		.16		.29		.19	
-2	.03		1.39		.25		-.09		-.46	
-1	.09		-.87		-.05		-.05		-.17	
0	.14	.14	-.14	-.14	.65***	.65***	1.00***	1.00***	.64	.64
1	.90***	1.05***	-1.02	-1.17	-.04	.62**	.43**	1.43***	-.20	.43
2	-.16	.89***	2.34	1.17	-.27	.34	-.26	1.17***	.23	.66
3	-.08	.81***	3.58	4.75***	.50**	.84***	-.08	1.09***	.13	.79**
4	-.07	.74**	-2.69	2.07	-.30	.54**	-.08	1.01***	-.04	.76
5	.02	.75***	-.72	1.35	.02	.56**	-.20	.81***	.17	.93**
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	

(III) DV: Abnormal stock price returns in percentage:

	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.04		.45		.63		.03		-.75***	
-3	-.10		.14		-.16		-.29		-.05	
-2	.08		-.16		-.31		-.02		.17	
-1	-.21		-.28		-.28		-.13		.18	
0	-.16	-.16	.14	.14	-.97***	-.97***	-.61***	-.61***	-.27	-.27***
1	.14	-.02	-.04	.11	-.25	-1.22***	-.76	-1.37***	-.96***	-1.23***
2	.10	.08	-.16	-.05	.00	-1.23**	-.35	-1.73**	-.01	-1.24***
3	-.15	-.07	-.19	-.24	.05	-1.17	.03	-1.70	-.19	-1.42***
4	.00	-.07	-.15	-.39	.09	-1.08	-.16	-1.86**	-.10	-1.53***
5	.14	.07	.05	-.35	-.39	-1.47	-.15	-2.01**	.75***	-.78
	N (CSI events) = 126 N (brands) = 70		N (CSI events) = 14 N (brands) = 5		N (CSI events) = 23 N (brands) = 12		N (CSI events) = 35 N (brands) = 18		N (CSI events) = 29 N (brands) = 17	

Notes: ** p <.05, *** p <.01 (one-sided t-test); In t = 0 CSI event appears in the news.

Appendix 10.3: Alternative Statistical Tests

Following prior research (Sorescu, Warren, and Ertekin 2017), to ensure robustness we use the Patell standardized residual test (Patell 1976), a standardized cross-sectional test (Boehmer, Muscumeci, and Poulson 1991), the non-parametric rank test proposed by Corrado (1989), and a generalized sign test as proposed by Cowan (1992). For all countries, none of the test suggests any other results (see Tables A.10.3.1, A.10.3.2, and A.10.3.3).

Table A.10.3.1
Impact of CSI on Brand Strength (Examples for the U.K.)

Event window	CAAR	t-test value	*p*-value	Patell z	*p*-value	Boehmer et al.	*p*-value	Corrado Rank	*p*-value	Sign test	*p*-value
(0...0)	-.26	-19.102	.02805	-18.225	.03420	-17.240	.04235	-16.256	.05200	-17.503	.04005
(0...1)	-.35	-23.864	.00850	-23.294	.00990	-27.214	.00325	-18.653	.03105	-21.714	.01495
(0...2)	-.24	-16.602	.04845	-13.550	.08770	-20.524	.02005	-11.150	.13245	-13.291	.09190
(0...3)	-.33	-21.323	.01650	-15.782	.05725	-26.749	.00375	-14.211	.07765	-27.329	.00315
(0...4)	-.35	-26.338	.00420	-13.433	.08960	-28.536	.00215	-11.153	.13235	-23.118	.01040
(0...5)	-.42	-27.803	.00270	-16.412	.05040	-32.562	.00055	-13.598	.08695	-25.926	.00475

Note: One-sided statistical tests.

Table A.10.3.2
Impact of CSI on Brand Attention (Examples for the U.K.)

Event window	CAAR	t-test value	*p*-value	Patell z	*p*-value	Boehmer et al.	*p*-value	Corrado Rank	*p*-value	Sign test	*p*-value
(0...0)	.0096	42.434	.0000	51.595	.0000	43.344	.0000	39.022	.0000	30.752	.0011
(0...1)	.0141	55.265	.0000	52.876	.0000	55.964	.0000	39.091	.0000	39.175	.0000
(0...2)	.0113	45.358	.0000	37.258	.0001	48.414	.0000	26.788	.0037	29.348	.0017
(0...3)	.0105	41.410	.0000	30.166	.0013	44.734	.0000	23.113	.0104	34.964	.0003
(0...4)	.0099	37.500	.0001	26.134	.0045	44.655	.0000	20.795	.0188	33.560	.0004
(0...5)	.0078	28.804	.0020	18.490	.0322	33.262	.0005	13.350	.0910	25.136	.0060

Note: One-sided statistical tests.

Table A.10.3.3
Impact of CSI on Stock Return (Examples for the U.K.)

Event window	CAAR	t-test value	*p*-value	Patell z	*p*-value	Boehmer et al.	*p*-value	Corrado Rank	*p*-value	Sign test	*p*-value
(0...0)	-.0099	-31.788	.00075	-30.299	.00120	-30.089	.00130	-27.989	.00255	-20.482	.02025
(0...1)	-.0110	-25.548	.00530	-23.792	.00865	-26.175	.00445	-22.163	.01335	-12.130	.11255
(0...2)	-.0118	-21.508	.01575	-15.226	.06395	-16.179	.05285	-17.622	.03900	-16.306	.05150
(0...3)	-.0114	-16.973	.04480	-11.943	.11615	-11.942	.11620	-11.050	.13460	-12.130	.11255
(0...4)	-.0108	-12.171	.11175	-.6036	.27305	-.5571	.28875	-.6537	.25665	-12.130	.11255
(0...5)	-.0148	-16.233	.05225	-.8901	.18670	-.9328	.17545	-.9827	.16290	.0398	.48415

Note: One-sided statistical tests.

Appendix 10.4: Alternative Coding of Consumer Perception

As an alternative approach to measure brand attention, we rescaled the index to a range from 0 to 100. It expresses the percentage number of people who have heard something positive or / and negative about a brand. Additionally, we also rescaled brand strength to a range from 0 to 100 to have a consistent measurement across perception metrics. Table A.10.4.1 and Table A.10.4.2 illustrate the results. The results are practically consistent with our reported results in the paper. The problem of an operationalization between 0 and 100 is that low numbers lead to very large returns that may bias the results. Furthermore, the theoretical value 0 does not allow calculation of returns. In addition, this measurement is not in line with extensive research on attitudinal scales (e.g., Bearden, Netemeyer, and Haws 2011). We therefore choose to not report these results in the main paper.

Table A.10.4.1
Alternative Operationalization of Brand Strength and Attention

(I) DV: Abnormal brand strength returns in percentage

	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.03		4.40		-.03		-.17		-.44	
-3	-.15		12.36		.14		-.04		.08	
-2	-.22		14.31		-.53		-.13		.05	
-1	-.04		1.35		.09		.08		-.09	
0	-.09	-.09	-10.19***	-10.19***	-.47	-.47	-.51**	-.51**	-.28	-.28
1	-.80**	-.88***	-10.43**	-20.62***	-.32	-.80***	-.19	-.70***	-1.18	-1.46***
2	.48	-.41	16.60	-4.02	-.12	-.92***	.22	-.48**	.34	-1.12**
3	-.61**	-1.02***	-8.33**	-12.35	.08	-.84***	-.15	-.64**	.59	-.53
4	.80**	-.21	1.46	-10.89	.20	-.64**	-.07	-.71***	-.54	-1.07**
5	-.61**	-.83**	2.20	-8.69	-.18	-.81***	-.13	-.84***	-.26	-1.33***
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	

(II) DV: Abnormal brand attention returns in percentage

	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-6.93		-35.51***		.18		-7.97		2.09	
-3	-4.11		36.96		.20		.17		-.74	
-2	-1.07		18.14		.50		-3.63		-2.44	
-1	-5.06		.38		-.03		-3.83		-16.09***	
0	-2.46	-2.46	-12.65	-12.65	1.05***	1.05***	11.97***	11.97***	6.46	6.46
1	28.71	26.25	-18.36	-31.00	-.03	1.02**	3.96	15.93***	15.54	22.00
2	-1.41	24.84	17.70	-13.30	-.49	.53	-10.70**	5.23	-6.52	15.48
3	-4.05	20.79	1.89	-11.41	.92***	1.44***	-5.26	-.03	-7.88	7.60
4	-6.88**	13.92	.96	-10.45	-.49	.95**	-3.59	-3.62	20.25	27.85
5	-4.42	9.49	-26.74***	-37.20	.01	.96**	-7.78	-11.41	9.75	37.60
	N (CSI events) = 173 N (brands) = 94		N (CSI events) = 65 N (brands) = 28		N (CSI events) = 141 N (brands) = 64		N (CSI events) = 203 N (brands) = 107		N (CSI events) = 92 N (brands) = 56	

Notes: ** $p < .05$, *** $p < .01$ (one-sided t-test); in t = 0 CSI event appears in the news.

Table A.10.4.2

Drivers of Stock Market with New Operationalization of Consumer Perception

DV: Cumulative abnormal stock returns in the event window 0 to 1	Expected sign	U.S. stock market (only US) Estimated Coefficient	(SE)	Local stock markets (without US) Estimated Coefficient	(SE)
Constant		-.0093	(.0094)	.0010	(.0109)
Consumer responses to CSI					
Local consumer response					
Negative brand strength returns	-	-.0995**	(.0536)	-.0357**	(.0197)
Positive brand attention returns	+ / -	.0022	(.0062)	-.0034	(.0095)
Interaction of brand strength and attention returns	-	-.0827	(.1376)	-.0056	(.0807)
CSI-specific driver					
Local media coverage	-	-.0011	(.0186)	-.0291**	(.0123)
Brand-specific driver					
Prior brand strength	+	.0003	(.0002)	.0005***	(.0002)
Control variables					
National CSI event		.0065	(.0073)	.0034	(.0058)
CSI event type: Governance issue (*base*)					
Social issue		-.0034	(.0065)	-.0016	(.0066)
Environmental issue		-.0012	(.0076)	.0056	(.0088)
CSI brand history		-.0056**	(.0031)	.0029	(.0027)
Product type: Services (*base*)					
Durables		-.0049	(.0069)	-.0110	(.0103)
Non-Durables		-.0114	(.0101)	-	-
Retailer		.0041	(.0070)	.-.0124	(.0082)
Brand name equal to company name		.0004	(.0054)	-.0058	(.0065)
Financial leverage		.0011	(.0021)	-.0009	(.0037)
Return on assets		-.0540	(.0434)	.0278	(.0591)
Market value of equity		$5.3x10^{-12}$***	($1.8x10^{-12}$)	$-3.0x10^{-11}$	($3.1x10^{-11}$)
Coefficient of determination / Sample size (CSI events):		R^2 = .14 / N = 126		R^2 = .21 / N = 91	

Notes: ** $p < .05$. *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else. We use bootstrapping specifications with 5,000 draws.

Appendix 10.5: Endogeneity Test for Brand Perception Analysis

Endogeneity issues of the media coverage variable might also be related to our consumer analysis if journalists choose stories in a strategic way. For example, journalists may prefer reporting on strong brands as the fall in brand strength may be more likely to induce a noteworthy story. We also conducted an instrumental-variable approach using Google Trends as an instrumental-variable to ensure robustness. We cannot reject the exogeneity assumption according to the Wu-Hausman test. As an example (e.g., French consumers), please see Table A.10.5.1.

Table A.10.5.1
Test for Endogeneity for the French Market as Example

		Brand Strength (French consumers)				**Brand Attention (French consumers)**			
DV: Cumulative abnormal brand-specific returns in the event window 0 to 5		**2SLS results**		**Hausman-Wu test estimation results**		**2SLS results**		**Hausman-Wu test estimation results**	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Constant		.0244	(.0172)	.0252	(.0168)	.0300	(.0320)	.0310	(.0319)
Residuals saved from prediction equation		-	-	.0321	(.0469)	-	-	.0023	(.0888)
CSI-specific drivers									
Local media coverage (Predicted)	-	-.0790**	(.0432)	-	-	-.0594	(.0803)	-	-
Local media coverage (Original)		-	-	-.0724**	(.0423)	-	-	-.0514	(.0799)
National CSI event	-	-.00087	(.0135)	-.0065	(.0134)	.0066	(.0252)	-.0004	(.0254)
National CSI event X foreign brand	-	.0017	(.0158)	.0108	(.0159)	.0171	(.0294)	.0281	(.0302)
CSI event type:									
Violation of unfair practices (*base*)		-	-	-	-	-	-	-	-
Violation of human rights	-	-.0005	(.0061)	-.0005	(.0059)	-.0083	(.0113)	-.0084	(.0113)
Violation of environment	-	-.0199**	(.0116)	-.0099	(.0122)	-.0564**	(.0217)	-.0442**	(.0231)
Brand-specific driver									
Prior brand strength	+	-.0005**	(.0002)	-.0004**	(.0002)	$.9x10^{-4}$	(.0004)	$.7x10^{-04}$	(.0004)
Control variables									
CSI event history		.0002	(.0019)	.0004	(.0018)	-.0026	(.0034)	-.0024	(.0034)
Brand type: Services (*base*)		-	-			-	-	-	-
Durables		-.00250	(.0078)	-.0049	(.0077)	.0202	(.0145)	.0173	(.0145)
Non-durables		-.0960***	(.0269)	-.0886***	(.0265)	-.0537	(.0500)	-.0446	(.0501)
Retailer		.0053	(.0092)	.0022	(.0091)	.0058	(.0171)	.0020	(.0172)
Foreign brand		-.0045	(.0132)	-.0093	(.0131)	-.0054	(.0246)	-.0113	(.0247)
Coefficient of determination / Sample size (CSI events):		R^2 = .24 / N = 92		R^2 = .29 / N = 92		R^2 = .18 / N = 92		R^2 = .20 / N = 92	

1st stage regression based on IV variable: Google Trends
Incremental F-statistic (for IV analysis):12.85 (French data set),

Notes: ** $p < .05$, *** $p < .01$; One-sided t-test for directional hypotheses, two-sided t-test else; 2SLS = two-stage least square.

Appendix 10.6: Handling Confounding Events

We eliminate confounding events as they could lead to a serious estimation bias (McWilliams and Siegel 1997). For robustness reasons, however, we leave the confounding events in our sample. The results suggest a negative impact on brand strength and a positive impact on brand attention in all countries. The impact on stock return is also similar to our reported results. As the results may be biased owing to a wide range of disturbing events, we do not consider the results in the main part of the paper but report them in Tables A.10.6.1 and A.10.6.2.

Table A.10.6.1
Including Confounded Events

(I) DV: Abnormal brand strength returns in percentage										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.01		-.61		.02		-.04		-.15	
-3	.12		2.31		-.06		.03		.24	
-2	-.20		-1.52		-.14		.00		-.11	
-1	-.06		.80		-.06		-.07		-.10	-.09
0	.11	.11	-2.34	-2.34	-.10	-.10	-.04	-.04	-.39	-.48
1	-.37***	-.27**	1.47	-.87	-.14	-.24**	-.10	-.13	.18**	-.30**
2	.19	-.08	.04	-.84	.05	-.18**	-.03	-.16	.19	-.11
3	-.08	-.16	.00	-.84	.03	-.15	-.07	-.23**	-.20	-.31
4	.20	.05	-3.13	-3.97**	-.06	-.21**	.02	-.21**	.06	-.24
5	-.24**	-.19	4.05	.08	.16	-.05	-.08	-.29***	-.39	-.09
	N (CSI events) = 295		N (CSI events) = 92		N (CSI events) = 274		N (CSI events) = 398		N (CSI events) = 194	
(II) DV: Abnormal brand attention returns in percentage										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	-.24		-1.46		.12		-.04		.13	
-3	.20		-.70		.11		.11		-.33	
-2	-.03		1.27		.21		.15		.36	
-1	.18		-.86		-.06		-.08		-.45	
0	.04	.04	-.34	-.34	.53***	.53***	.58***	.58***	.77**	.77**
1	.52	.56***	.29	-.04	-.05	.48***	.17	.75***	-.04	.73**
2	-.09	.47**	.65	.60	-.13	.34**	-.18	.57***	-.32	.41
3	-.22	.25	.06	2.67**	.22	.57***	.07	.64***	.08	.59**
4	.35	.60***	-.87	1.80	-.14	.42**	-.12	.52***	.11	.70**
5	-.08	.52**	.55	2.35	-.14	.28	-.03	.49***	-.39	.30
	N (CSI events) = 295		N (CSI events) = 92		N (CSI events) = 274		N (CSI events) = 398		N (CSI events) = 194	
(III) DV: Abnormal stock price returns in percentage										
	US		Mexico		Germany		UK		France	
t	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**	**AAR**	**CAAR**
-4	.07		.37		.48		.27		-.84***	
-3	-.10		.11		-.04		-.29		.08	
-2	.17		.07		-.05		-.28		.12	
-1	-.17		-.49		.05		.09		.36	
0	-.06	-.06	.26	.26	-.50**	-.50**	-.16	-.16	-.23	-.23
1	.19	.13	.05	.31	.16	-.35	-.38	-.54**	.03	-.21
2	.08	.21	-.30	.01	-.11	-.45	-.10	-.64	-.15	-.36
3	-.12	.08	-.38	-.38	.11	-.34	.15	-.49	-.35	-.71
4	.07	.16	.01	-.37	.22	-.12	.07	-.41	.36	-.36
5	.09	.25	.15	-.22	-.19	-.31	-.16	-.58	.29	-.07
	N (CSI events) = 239		N (CSI events) = 15		N (CSI events) = 37		N (CSI events) = 73		N (CSI events) = 75	

Notes: ** $p < .05$, *** $p < .01$ (one-sided t-test); [a] Does not add up as some CSI events or brands are observed in several countries. In t = 0 CSI event appears in the news.

Table A.10.6.2
Drivers of Stock Market (Confounded Events Included)

DV: Cumulative abnormal stock returns in the event window 0 to 1	Expected sign	U.S. stock market (only US) Estimated Coefficient	(SE)	Local stock markets (without US) Estimated Coefficient	(SE)
Constant		.0096	(.0075)	-.0081	(.0103)
Consumer responses to CSI					
Local consumer response					
Negative brand strength returns	-	-.1625**	(.0761)	-.0533**	(.0349)
Positive brand attention returns	+ / -	-.0538	(.0562)	-.0323	(.0383)
Interaction of brand strength and attention returns	-	-1.8124	(1.9386)	-.2242	(.4560)
CSI-specific driver					
Local media coverage	-	.0124	(.0144)	-.0057	(.0140)
Brand-specific driver					
Prior brand strength	+	.0002	(.0001)	.0002	(.0002)
Control variables					
National CSI event		.0024	(.0044)	.0057	(.0056)
CSI event type: Governance issue (*base*)		-	-	-	-
Social issue		-.0074	(.0042)	.0010	(.0052)
Environmental issue		-.0053	(.0055)	.0091	(.0060)
CSI brand history		-.0003	(.0015)	-.0016	(.0019)
Product type: Services (*base*)		-	-	-	-
Durables		-.0057	(.0055)	.0006	(.0087)
Non-Durables		-.0358	(.0226)	-	-
Retailer		.0011	(.0047)	.0003	(.0051)
Brand name equal to company name		-.0073	(.0058)	-.0078	(.0048)
Financial leverage		-.0022	(.0019)	-.0011	(.0045)
Return on assets		-.0168	(.0284)	.0061	(.0331)
Market value of equity		$1.2x10^{-12}$	($1.1x10^{-12}$)	$2.2x10^{-11}$	($2.2x10^{-11}$)
Dummy for confounding event		-.0056	(.0062)	.0122**	(.0063)
Coefficient of determination / Sample size (CSI events):		R^2 = .14 / N^a = 230		R^2 = .12 / N = 200	

Notes: ** p <.05 *** p <.01; One-sided t-test for directional hypotheses, two-sided t-test else. We use bootstrapping specifications with 5,000 draws; [a] For nine events (U.S. stock market analysis), we do not have additional data on finance-related control variables.

Appendix 10.7: Omitted Variable Bias

We also added new variables to our cross-sectional regressions. Specifically, we added brand power dispersion (Luo, Raithel, and Wiles 2013) and a count variable to capture potential time effects. Table A.10.7.1 summarizes the results of the consumer analyses; A.10.7.2 summarizes the results of the stock market analysis.

Table A.10.7.1
Adding New Variables (Brand Strengths)

Adding new variable	**US**	**Mexico**	**Germany**	**UK**	**France**
Dependent variable: *Brand Strength*					
Time variable in weeks	$p = .06^{N.S}$	$p = .69^{N.S}$	$p = .08^{N.S}$	$p = .10^{N.S}$	$p = .41^{N.S}$
Brand dispersion	$p = .29^{N.S}$	$p = .69^{N.S}$	$p = .24^{N.S}$	$p = .52^{N.S}$	$p = .57^{N.S}$
Dependent variable: *Brand Attention*					
Time variable in weeks	$p = .11^{N.S}$	$p = .73^{N.S}$	$p = .13^{N.S}$	$p = .92^{N.S}$	$p = .86^{N.S}$
Brand dispersion	$p = .48^{N.S}$	$p = .35^{N.S}$	$p = .30^{N.S}$	$p = .69^{N.S}$	$p = .95^{N.S}$

Notes: p-value (two sided t-test) for coefficient in the regression; N.S. (not significant) if $p > .05$.

Table A.10.7.2
Adding New Variables (Stock Returns)

Adding new variable	**U.S. stock market**	**Local stock markets**
Dependent variable: *Stock Return*		
Time variable in weeks	$p = .47^{N.S}$	$p = .90^{N.S}$
Brand dispersion	$p = .72^{N.S}$	$p = .78^{N.S}$

Notes: p-value (two sided t-test) for coefficient in the regression; N.S. (not significant) if $p > .05$.

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PAPER III:
THE IMPACT OF FAVORABLE MEDIA COVERAGE OF CORPORATE SOCIAL RESPONSIBILITY ACTIVITIES ON CONSUMER PERCEPTION METRICS AND STOCK RETURNS

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ABSTRACT

Corporate social responsibility (CSR) activities receive strong attention from firms, consumers, research, and the media. For example, newspapers increasingly report news on CSR activities. But does favorable media coverage of CSR affect consumer brand perception as well as financial measures of a firm? Using an event study, this study analyzes the impact of 183 CSR activities published in public media on consumer brand perception and stock returns.

Results show that the positive impact of CSR news on consumer brand perception is mainly driven by media presence, type of CSR, and prior brand reputation. Results also show that despite having an overall positive impact on stock returns, consumer reactions to CSR do not determine that impact. Thus, investors' perception of CSR activities differs from that of consumers: Whereas investors especially appreciate CSR activities of strong companies, consumers appreciate activities from companies that have a poor brand reputation.

Keywords: Corporate Social Responsibility, Event Study, Consumer Perception, Stock Return

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1 Introduction

Activities reflecting corporate social responsibility (CSR) have become an important component of doing business in today's corporate environment (Hildebrand et al. 2017). Owing to social and institutional pressure, managers focus extensively on responsibility topics, and over 80% of the companies in the S&P 500 index regularly issue CSR reports (Governance and Sustainability Institute 2018). Additionally, a survey by KPMG (2017) shows that among the world's largest 250 companies, the CSR reporting rate increased from 52% in 2005 to 93% in 2017. Furthermore, CSR activities attract the attention of many journalists: "McDonald's to Serve an Organic Burger" (The *New York Times* 2015), "IKEA gives £38 million to help Somali refugee crisis" (The *Telegraph* 2011), and "Coca-Cola Joins AIDS Fight in Africa" (The *New York Times* 2001). As these examples demonstrate, companies increasingly try to communicate their CSR efforts through public media (Szőcs et al. 2016).

In line with these real-world developments, academic research on CSR has been extensive. For decades, researchers have investigated the relationship between business and society (e.g., Flammer 2015; Carroll 1979). The literature can be structured into studies that concentrate on the effects of CSR on stakeholder groups such as employees (e.g., Greening and Turban 2000; Korschun, Bhattacharya, and Swain 2014; Lee, Park, and Lee 2013), governments (e.g., Su and He 2010; Wang and Qian 2011), consumers (e.g., Bhattachrya and Sen 2004; Ellen, Webb, and Mohr 2006; Habel et al. 2016), and shareholders (e.g., Mishra and Modi 2016; Groening and Kanuri 2013).

While these studies offer answers to how, why, and when CSR activities should be implemented by firms, researchers have mostly ignored whether and how these activities should be covered in public media to achieve positive effects for companies. This neglect is a significant oversight, as public media reporting directs people's attention to issues and

influences peoples' perceptions (McCombs 1997). Prior research in diverse fields has shown that public media reports critically drive responses to corporate crisis events (e.g., Liu and Shankar 2015) as well as political elections (e.g., Besley and Prat 2006), public affairs (Larcinese, Puglisi, and Snyder 2011), corruption rates of countries (e.g., Brunetti and Weder 2003), and key executive changes (e.g., Brunetti and Weder 2003). As reporting may also drive the positive effects of CSR activities, marketers need to know exactly what to consider when they try to communicate their CSR activities through public media. How public media coverage determines the consequences of CSR is thus the *first central research topic* of this paper.

Another significant oversight in the literature is that current studies concentrate mostly on one type of CSR activity although managers face a wide range of opportunities when they want to carry out CSR activities. Importantly, which type will be appreciated by which stakeholder group is not yet clear (Hildebrand et al. 2017). This neglect makes it to the *second central research topic* of this paper.

Last, even though there is extensive literature of CSR on stock return (e.g., Groening and Kanuri 2013), the results to date have been rather conflicting. One reason may lie in the fact that barely any study has taken into consideration how the consumer response may determine the effect on stock return. The efficient market hypothesis (Fama et al. 1969), however, suggests that investors make decisions based on expected future cash flows which are grounded in consumer responses. The investigation of how consumer responses to CSR determine stock market reactions is thus *third central research topic* of this paper.

Thus, this study develops a model reflecting the consequences of CSR activities reported in public media and provides specific answers to the following research questions:

1. How does favorable media coverage of CSR activities impact consumer perception metrics and stock return?

2. How does the effect of CSR activities vary with different types of CSR?
3. Does the consumer response to CSR activities determine stock market reactions?

As examination of all stakeholder groups is beyond the scope of this investigation, this study concentrates on several consumer brand perception metrics and stock returns. Consumers and investors represent the interface between the market and firms, which are the marketing field's core domain (Cleeren, Dekimpe, and van Heerde 2017). The impact of CSR activities on both consumer brand metrics and stock returns is crucial for a company's success, as the brand is one of the most valuable assets for many companies and strong brands can lead to long-term profitability (Edeling and Fischer 2016; Du, Bhattacharya, and Sen 2007; Deng, Kang, and Low 2013; Hillman and Keim 2001; Mizik 2014; Pirsch, Gupta, and Grau 2007). Therefore, companies often try to strengthen their brands by engaging in CSR activities (Hillman and Keim 2001). This study provides specific guidance on how CSR activities and which CSR type should be published in public media to increase the potential benefits. Further, since the stock price represents the financial market value of a company, managers must also maintain good relationships with investors. However, investors may view corporate social actions differently from consumers and believe that CSR activities increase costs and decrease profitability (Groening and Kanuri 2013). Managers are then confronted with the trade-off between satisfying the needs of consumers and gratifying those of shareholders. This study gives insights into how investors may view CSR activities differently than consumers.

Besides developing manager implications this study also vitally contributes to the CSR literature. Most studies on the consequences of CSR have followed theoretical and experimental research designs. This study essentially differs from these prior studies by combining observed CSR activities with multi-source datasets covering consumer perception

metrics and stock return. Furthermore, this study draws on stakeholder and agenda-setting theory to develop a broad conceptual model of the consequences of CSR.

This analysis draws on a large, unique dataset comprising CSR activities of 600 brands that appeared in German public media from February 2008 to March 2015, leading to an investigation of 183 CSR activities across 12 industries and 77 brands. Using the methodology of an event study, the study examines how news on CSR activities affects brand-specific perception metrics (YouGov BrandIndex dimensions) as well as stock returns. The analytical emphasis on news relating to CSR activities rather than CSR activities per se arises because CSR responses need to gain a critical minimum of media attention before they are perceived by consumers. This emphasis is a key feature of the study's identification strategy.

This investigation offers interesting insights into CSR activities, most particularly a positive impact of CSR activities on consumer brand metrics and stock returns. The role of public media coverage of the CSR activities is thereby crucial: The more media outlets report about a CSR activity, the greater the positive impact. Further, the positive impact varies with the type of CSR. For example, consumers appreciate long-term activities more than short-term activities, and activities concerning society and the environment have a greater impact than activities concerning employees. Surprisingly, results show that prior brand reputation drives consumer brand perception and stock returns asymmetrically: While shareholders especially appreciate CSR activities that are produced by companies with a very good brand reputation, consumers especially appreciate CSR activities that are produced by companies with a weak brand reputation.

The paper has the following organization: The next section offers a short overview of the literature and is followed by presentation of the theoretical and conceptual framework. Subsequently the data collection and the empirical model to estimate effects on consumer

brand perception and stock returns are described. After presentation of the results, the paper concludes with a discussion of the results, implications for managerial CSR responses, and limitations that suggest future research.

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2 Related Literature

The impact of CSR activities has attracted the attention of many researchers across several disciplines. Table 1 gives an overview of these studies and positions this examination relative to other investigations.

Table 1: Representative Research on CSR Effects

Authors in chronological order	Research Focus (DV)	Type of CSR activity	Results & Key Issues	Empirical design	Media pre-sence	Different types of CSR	Prior brand reputation
Impact of CSR activities on stock returns							
Wright, Ferris, Hiller, & Kroll 1995	Announcement effects of Labor awards for affirmative action programs.	Employee-related activities.	Positive impact on stock return (AR = .50, $p < .05$).	Event study (n = 34)	X	X	X
Klassen & McLaughlin 1996	Announcement effects of environmental performance awards.	Environment-related activities.	Positive impact on stock return (AR = .628, $p < .05$).	Event study (n = 140)	X	X	X
Mathur & Mathur 2000	Announcement effects of green marketing activities.	Environment-related activities.	Negative impact on stock return (CAAR = -1.98, $p < .05$).	Event study (n = 73)	X	X	X
Muller & Kräussl 2011	Announcement effects of donations in the case of Hurricane Katrina.	Society-related activities.	Negative impact on stock return (AR = -.27, $p < .05$).	Event study (n = 383)	X	X	✔
Flammer 2013	Announcement effects of corporate news related to the environment.	Environment-related activities.	Positive impact on stock return (CAAR = .84, $p < .05$).	Event study (n = 117)	X	X	✔
Groening & Kanuri 2013	Announcement effects of the deletion of corporate misconduct and of proactive CSR events.	Proactive- and reactive-related activities.	No impact of proactive CSR on stock return (CAAR = -.05, $p > .05$).No impact on reactive CSR on stock return (CAAR = .15, $p > .05$).	Event study (n = 569)	X	✔	X
Flammer 2015	Effects of shareholder proposals related to CSR.	Environment- and society-related proposals.	Positive impact of passing CSR proposal (CAAR = .92, $p < .05$).	Regression discontinuity approach	X	✔	X
Mishra & Modi 2016	Effects of CSR ratings.	Environment-, product-, governance-, employee-, and community-related activities.	CSR is not likely to affect stock return directly but is more likely to do so in the presence of marketing capability.	Stock return response model	X	✔	✔
Impact of CSR activities on consumer perception							
Brown & Dacin 1997	CSR effects on evaluations towards the product.	General CSR activities.	Consumer's prior knowledge about a company influences the relationship of CSR and product evaluations.	Surveys / Laboratory experiments	X	X	✔
Kennedy, Ferrell, & LeClair 2001	CSR effects on consumers' satisfaction and trust towards the firm.	General CSR activities.	Positive influence of manufacturer ethical perception on satisfaction and trust towards firm.	Surveys / Path analysis model	X	X	X
Sen & Bhattacharya 2001	CSR effects on consumers' purchase behavior.	General CSR activities.	Positive relationship is stronger among consumers that perceive the company to have a better reputation.	Surveys / Laboratory experiments	X	X	✔

Berens, van Riel, & van Bruggen 2005	CSR effects on product evaluations and purchase intentions.	General CSR activities.	Corporate brand strategy determines impact on product attitudes and purchase intention.	Field experiments	X	X	✔
Ellen, Webb, & Mohr 2006	CSR effects on consumer attributions.	General CSR activities.	Consumers responded positively to value driven CSR efforts and negatively to efforts perceived as egoistic.	Surveys / Laboratory experiments	X	✔	X
Madrigal & Boush 2008	CSR effects on attitudes towards the product, advertisement, and brand.	Environment-related activities.	Customers' willingness to reward a brand moderates effect of CSR on attitudes toward the product, advertisement and brand.	Surveys / Laboratory experiments	X	X	X
Vlachos, Tsamakos, Vrechopoulos, & Avramidis 2009	CSR effects on consumer trust, repeat patronage intentions, and recommendation intentions.	General CSR activities.	Consumer trust mediates the impact of CSR on repeat patronage and recommendation intentions.	Surveys	X	X	X
Brunk 2010	CSR effects on consumers' perceived ethicality of a company.	Consumer-, environment-, employee-, and society-related activities.	Different types play an important role for diverse effects on perceived ethicality of a company.	Qualitative study: in-depth interviews	✔	✔	X
Öberseder, Schlegelmilch, & Murphy 2013	CSR effects on consumers' overall perception.	Consumer-, environment-, employee-, government-, competitor-, media-, and society-related activities.	Different types have different importance levels for consumers.	Qualitative study: in-depth interviews	X	✔	X
Olsen, Slotegraaf, & Chandukala 2014	CSR effects on brand attitude.	Environment-related activities.	Green new product introductions can improve brand attitude.	Observed product introductions / three-stage least squares model	X	X	✔
Habel, Schons, Alavi, & Wieseke 2016	CSR effects on perceived price fairness.	Philanthropic and business-process activities.	CSR engagement has a mixed effect on consumers' evaluation of price fairness.	Qualitative studies / field experiment / laboratory experiment	X	✔	X
Szöcs, Schlegelmilch, Rusch, & Shamma 2016	CSR effects on company evaluations.	General CSR activities.	Positive impact of corporate philanthropy on customers' overall evaluations. Results vary for non-customers and customers.	Surveys	X	✔	X
Hildebrand, Demotta, Sen, & Valenzuela 2017	CSR effects on company evaluations.	Monetary and in-kind activities.	Consumers evaluate a company more favorable when it makes in-kind rather than monetary contributions.	Surveys / Laboratory experiment	X	✔	X
Impact of CSR activities on consumers and stock returns							
Luo & Bhattacharya 2006	CSR effects on consumer satisfaction and stock return.	CSR ratings by FAMA.	Consumer satisfaction partially mediates the relationship between CSR and stock return.	Structural Equation Model	X	X	X
This study	Impact on consumer brand metrics and stock return.	Consumer-, environment-, employee-, and society-related activities.	Positive impact on brand metrics (e.g, AR = .21, $p < .05$) and stock return (e.g, CAAR = 1.16, $p < .01$). Several moderating variables are identified.	Event study (n = 184)	✔	✔	✔

Notes: [1]Prior brand reputation also relates to similar constructs such as environmental strength (Flammer 2013). This overview only refers to leading journals in marketing, business, and psychology such as *Journal of Marketing, Journal of Marketing Research, Marketing Science, Journal of Consumer Research, Journal of the Academy of Marketing Science, Management Science, Academy of Management Journal, Journal of Business Research, Strategic Management Journal, Journal of Consumer Psychology, Psychology and Marketing*. Further, a study by Kang, Germann and Grewal (2016) investigates how CSR affects firm performance. Further, a study by Iyer and Soberman (2016) investigates the incentives of firms to invest in socially responsible product innovations. Their focus however is neither on stock return nor on consumer-specific metrics.

While the literature on the relationship between CSR activities and stock returns is extensive (e.g., Luo and Bhattacharya 2006), the empirical results to date have been conflicting. Although most studies find a positive impact on stock returns (e.g., Wright et al. 1995), some investigations find a negative effect (e.g., Mathur and Mathur 2000), no effect (e.g., Groening and Kanuri 2013), or an effect only under certain boundary conditions. One of the boundary conditions for the positive effects may be related to the type of CSR activity. Researchers have investigated the announcement of employee-related activities (Wright et al. 1995), environmental issues (Klassen and Mclauglin 1996; Mathur and Mathur 2000; Flammer 2013), donations (Muller and Kräussl 2011), responses to address corporate misconduct[19] (Groening and Kanuri 2013), passing CSR proposals (Flammer 2015), and many other areas, with authors sometimes reaching different conclusions about the same type of CSR activity (e.g., Flammer 2013 vs. Mathur and Mathur 2000).

How and why these conflicting differences concerning the stock market reaction occur across these studies is a challenging question. At least two explanations are possible. *First*, none of these prior studies controls for how many newspapers report about the CSR activity, even though companies' behavior toward CSR has come under increasing scrutiny by the public media (Flammer 2013). Thus, the number of reporting media outlets may serve as a signal to investors as to whether the CSR activity can induce future cash flows, which eventually get reflected in the stock price. *Second*, the current literature does not consider the response of consumers to a CSR activity. An early exception demonstrates that consumer satisfaction partially mediates the relationship between CSR ratings and firm market value (Luo and Bhattacharya 2006). Also, theoretical (e.g., Kerin and Sethuraman 1998) and empirical work (e.g, Mizik and Jacobson 2008) in related marketing fields suggest that improvements in brand perceptions cause investors' expectations of higher future cash flows.

[19] E.g., improvements of working conditions after a human rights scandal.

Considering media coverage and consumers' response toward a CSR activity is thus a critical focus of this study investigating stock return.

Concerning consumer-related effects, most researches have established a positive impact of CSR activities on various consumer perception metrics (e.g., Sen and Bhattacharya 2001). They have identified an effect on consumers' evaluations of the company (e.g., Hildebrand et al. 2017; Szöcs et al. 2016; Yoon, Gürhan-Canli, and Schwarz 2006), trust in the company (Kennedy, Ferrell, and LeClair 2001), satisfaction (Kennedy, Ferrell, and LeClair 2001), product evaluations (Brown and Dacin 1997), brand attitude (Olsen, Slotengraaf, and Chandukala 2014), attitudes toward advertising (Madrigal und Boush 2008), attributions (Ellen, Webb and Mohr 2006), perceived price fairness (Habel et al. 2016), recommendation intentions (Vlachos et al. 2009), and purchase intentions (Berens, van Riel, and van Bruggen 2005).

However, only a few of these studies highlight the relevance of different CSR types (e.g., Brunk 2010; Hildebrand et al. 2017; Öberseder and Schlegelmilch 2013). The studies on the different CSR types relied on surveys and experiments. Owing to their high internal validity, they give a detailed insight into the consumers' mind set. However, these studies unfortunately suffer from hypothetical conditions. This study investigates and classifies a wide range of different types of observed CSR activities in a real-world environment while controlling for a wide range of moderators and control variables. This helps managers forecasting which CSR activity will create the greatest value for them.

Furthermore, importantly, researchers have identified the role of public media as a critical driver of corporate activities and argue that consumers regard newspapers articles as neutral and as having high credibility, making them more likely to induce positive changes in attitudes than announcements by the companies themselves (Yoon, Gürhan-Canli, and

Schwarz 2006). Thus, this study differs from prior research by investigating observed CSR activities covered in public press media.

3 Conceptual Framework

3.1 Underlying Theories

This investigation relies on stakeholder theory (Freeman 1984) to explain the impact of CSR activities on consumer brand perception. Stakeholders are any groups and individuals that have certain relationships with companies. Stakeholder theory assumes that firm performance depends heavily on managing the needs and wishes of these groups. Managers must therefore create and maintain good relationships with their stakeholders to increase the value of their brands, sell their products, and thus improve their financial results (e.g., Agle, Mitchell, and Sonnenfeld 1999; Post, Preston, and Sachs 2002; Turban and Greening 1997). This maintenance includes satisfying the needs of consumers. Many consumers regard themselves as socially responsible: They donate to charities, invest in socially responsible funds, or consume environment-friendly products (Bhattacharya and Sen 2004). Implementing CSR activities is thus in line with what consumers expect and should evoke positive consumer reactions.

How CSR activities affect shareholders is a more challenging question. Investors face the tradeoff between potential positive effects enhanced by good relationships with stakeholders and the potential costs that result from implementing CSR activities (e.g., Groening and Kanuri 2013). If shareholders believe the potential benefits of CSR activities will exceed the potential costs of enhancing financial performance, the impact on stock returns may be positive. However, if shareholders believe that the benefits of CSR will not compensate for the costs, they will see CSR activities as unnecessary and a misappropriation of resources. Thus, CSR activities will have a positive impact on investors only if investors receive a clear

signal that CSR activities enhance the company's ability to generate future cash flows. This study therefore investigates the critical role of the public media that may serve as such a signal.

Agenda-setting theory helps to explain the impact of CSR activities covered in public media reports on stock returns. Agenda-setting theory describes how public media reporting influences the issues people give attention to (McCombs 1997). As public media are commonly seen as a trusted and credible source of information (Bandura 2001), reporting may serve as a signal that a firm is truly engaged in CSR activities. Through agenda-setting, journalists and editors have enormous power in shaping public perception of the reality of issues. Reality is not objective, but rather is subjective and constructed in the mind of the perceiver (Galtung and Ruge 1965, Bandura 2001). Thus, the strong impact on consumer brand perception of public media coverage of CSR activities may also serve as an indicator for investors that CSR activities can enhance consumer behavior and result in future cash flows.

3.2 Conceptual Model

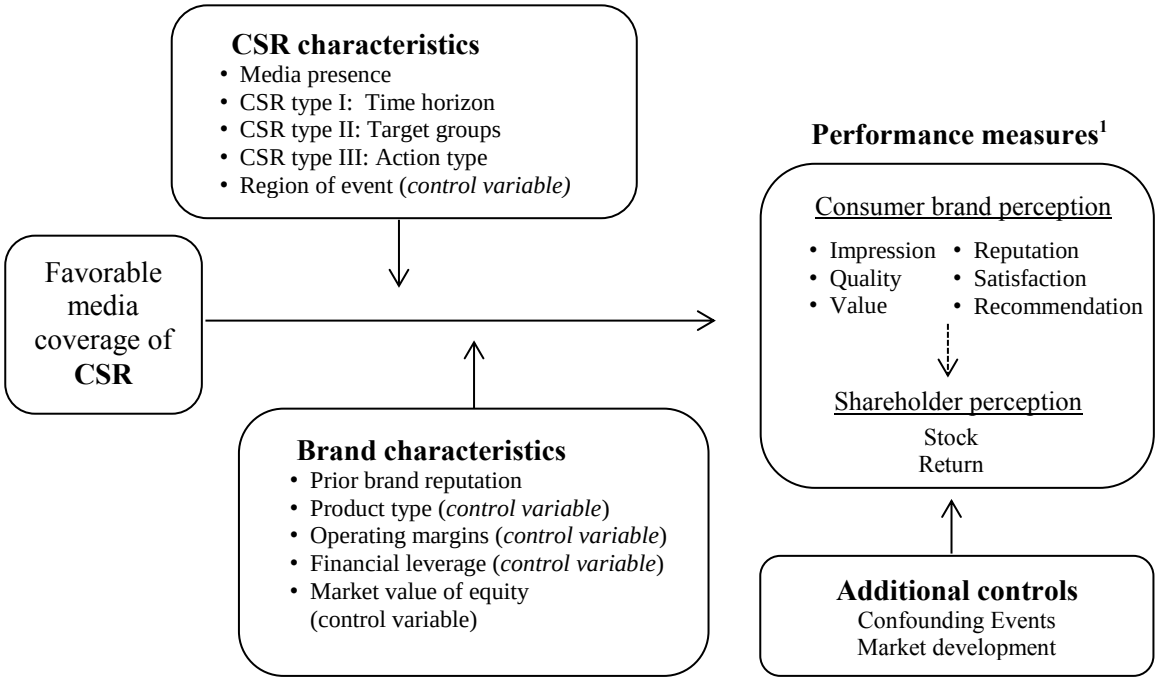
Figure 1 shows the conceptual model used to explain and measure the impact of CSR activities on consumer brand perception and stock returns.

CSR activities. This study concentrates on activities that advance social welfare and go beyond what is required by law (e.g., McWilliams and Siegel 2001). CSR is "an organization's obligation to maximize its positive impact and minimize its negative impact on society" (Pride and Ferell 1995, p. 72). A wide range of CSR activity types are added as a moderating variable.

Performance metrics. This study investigates consumer brand perception (YouGov BrandIndex), which is a combined measurement of six dimensions: Overall impression, brand satisfaction, brand quality, brand value, brand recommendation, and brand identification.

Brand perception represents the depth of the knowledge structures a person has built up for a brand and adds a directional meaning by integrating cognition, emotions, and behavioral intentions. Overall, brand perception measures how strong the brand is in the minds and hearts of consumers. An additional exploratory analysis investigates each dimension separately to provide insights into how CSR activities affect the various dimensions of a brand. This study also investigates the impact of CSR activities on stock market price in terms of how the impact of CSR activities on consumer brand perception determines stock price.

Figure 1: Conceptual Framework



Note: [1]These stakeholder groups represent the interface between the market and firms which is the marketing field's core domain

Moderating variables. To investigate the critical role of public media, this analysis includes media presence as a moderator, defined as the number of press media outlets reporting the CSR activity. The study also investigates CSR types (e.g., Hildebrand et al. 2017), which are first distinguished as either long-term (e.g., cooperation with a school) or short-term (e.g., single one-time donation) activities, and then are differentiated into activities concerning the environment (e.g., improving CO_2 conditions), consumers (e.g., reducing

chemicals in clothes), employees (e.g., improving working conditions), and society (e.g., building a school) (Öbseder and Schlegelmilch 2013). A third distinction is between reactive (e.g., improving working conditions after a human rights scandal) and proactive (e.g., paying for kindergarten) activities (Groening and Kanuri 2013). The final critical moderating variable is prior brand strength (e.g., Flammer 2013).

Control variables. Control variables include the region where the CSI activity takes place, product type, market value of equity, financial leverage, and operating margins. In addition, confounded events are eliminated. Confounding events are influences that may overlap the impact of CSR news on consumer perception and stock returns. For instance, if a firm announces the introduction of a new product on the same day as a CSR activity is reported in the press, the effect of the CSR activity on the perception measures cannot be clearly estimated. Ignoring confounding events would lead to a systematic estimation bias (McWilliams and Siegel 1997). In line with the methodology of event studies (e.g., Groening and Kanuri 2013), the analysis also controls for overall market development so as to forecast the stock market performance of a brand if the CSR activity had not occurred.

3.3 Expectations Regarding the Effect on Consumer Brand Perception

Stakeholder theory suggests that to be successful, companies need to establish and maintain good relationships with their stakeholders, including consumers. CSR activities offer one way to do so, as they constitute a strong signal from companies that they invest in the consumer–company relationship and accept their corporate responsibility to society. Thus, this study suggests a generally positive impact of CSR activities on *consumer brand perception*. However, this positive impact may be driven by different moderating variables.

Media presence. Agenda-setting theory suggests that the media influence which topics consumers perceive to be relevant. Thus, in the presence of CSR activities, the mass media have a crucial impact on *consumer brand perception*. A reasonable expectation is that the

more the media report on the activity, the greater the chance consumers will be exposed to the news and will change their attitudes. Notably, this study's results hold only for press media outlets. However, on the basis of prior research (e.g., Hewett et al. 2016), a reasonable assumption is a strong correlation between CSR coverage in press outlets and TV, radio, or internet.

CSR type I (time horizon). Consumers' perceived relationship with a company may depend on whether they truly believe the company invests in the company–consumer relationship. Time-unrestricted CSR activities (e.g., long-term cooperation with a school in a developing country) may be more likely to induce positive feelings about the consumer–firm relationship than time-restricted CSR activities (e.g., a one-time donation). An important aspect of consumer attribution and evaluation of corporate activities is whether the consumer regards a firm's CSR activity as credible. Owing to high costs in terms of money and time, long-term activities in particular seem to be regarded as serious efforts and would result in a higher credibility. Thus, this study assumes a stronger positive effect on *consumer brand perception* for long-term activities over short-term activities.

CSR type II (target group). Stakeholder theory suggests that firm activities should be in line with the demands and needs of several stakeholder groups. As an exploratory effort, this study distinguishes between CSR activities concerning environmental issues or social issues[20] relating to consumers themselves, society as a whole, or employees. Environmental issues include the prevention of environmental erosion and engagement in activities concerning environmental surroundings (e.g., a firm planting trees). Employee-related issues encompass the improvement of working conditions and social offers to the employees (e.g., a firm paying for kindergarten). Society-related issues include engagement in activities that benefit society as a whole (e.g., a firm providing free water for public schools). Consumer-related issues are

[20] Note that this study does not find media to report on favorable brand-specific governance issues (e.g., board diversity).

company activities that directly affect consumers (e.g., a firm producing organic fabric). Since drawing well founded inferences about the role of these CSR types is difficult, this study has no a priori expectations regarding the effects on *consumer brand perception*.

CSR type III (action type). Many times, CSR activities become imperative for companies after CSR-related scandals (e.g., improving working conditions after a scandal). These so-called reactive CSR activities are aimed at overriding corporate social irresponsibility (CSI) (Groening and Kanuri 2013). From the consumer's point of view, the counterbalancing of CSI might be taken for granted and may not be seen as a firm's investment into its stakeholder relationship. Thus, this study assumes that proactive CSR activities have a greater impact on *consumer brand perception* than reactive activities.

Prior brand reputation. Brand reputation might also play a critical role in how consumers perceive CSR activities. Stakeholder theory generally suggests that consumers demand and expect ethical conformity across firm behavior. However, expectations that well established brands will engage in CSR activities may be stronger, because consumers may think that strong brands also have the financial capability to "do good." Thus, CSR activities of strong companies may not be as surprising to consumers as CSR activities by "bad" companies. Therefore, this study assumes that CSR activities of companies with a strongly favorable prior reputation have a lower impact on *consumer brand perception*.

Control variables. The origin of a CSR activity may lie in the residential region of the consumer, in other countries, or not be clearly identifiable. On the one hand, one could imagine that the consumer perceives CSR activities that occur in the residential region as more personally relevant than activities that take place outside of this region. On the other hand, one could imagine that consumers especially perceive activities that take place in developing countries as more relevant than activities that take place in industrialized countries. Therefore, this study considers four possibilities: No region mentioned, developing

countries, other developed countries, and the home region (also referred to as a developed country). Since a well-founded theory about the role of CSR origin cannot be formulated, the study does not formulate a priori expectations.

The impact of CSR activities on consumer brand perception might also depend on the product type, which differs in terms of product involvement, purchase frequency, or perceived risk (Nelson 1970) and takes four forms: Retail, services, durables, and non-durables. Again, no a priori expectations are formulated.

3.4 Expectations Regarding the Effect on Stock Returns

The efficient market hypothesis (Fama et al. 1969) suggests that investors are able to objectively asses the value relevance of different firm actions. CSR activities may have a positive impact on *stock returns* only if investors believe that the potential benefits of CSR activities will exceed the potential costs. On the basis of agenda-setting theory, this study assumes that CSR activities reported in public media are a strong signal for positive effects on future cash flows. Thus, a positive impact of CSR news on *stock returns* is assumed. Besides a main effect, the impact on *stock returns* may be driven by the following moderator and control variables.

Media presence. As with its impact on consumer perception, increasing CSR media coverage may have a positive effect on *stock returns*. To better anticipate a firm's net value, investors use media coverage as a signal to assess the relevance of the CSR activity.

Consumer brand perception changes. Positive consumer brand perception changes due to CSR news may induce a positive impact on *stock returns*. Since investors need information on whether benefits of CSR activities will outweigh their costs, investors interpret how the firm activity will affect specific stakeholder groups (e.g., Groening, Mittal, and Zhang 2016). Investors might take positive consumer brand perception changes as an indicator for a potential surplus of benefits.

4 Database

4.1 Consumer Brand Perception Data

Data to proxy for consumer brand perception came from BrandIndex Germany, provided by YouGov, a global market research company that specializes in online methods. In Germany, YouGov captures the perception of about 600 brands on a daily basis. Notably, the study's results hold for only this selection of brands and associated firms. Since small and less known brands have a lower chance to be monitored by YouGov, the study's results may be rather conservative.

BrandIndex is a combined measurement of six brand attitudinal variables: Brand impression, brand quality, brand value, brand identification, brand satisfaction, and brand recommendation. In line with established research on attitudinal scales (e.g., Bearden, Netemeyer, and Haws 2011), each variable is a measured on a three-point scale. Thus, for each variable, respondents state which brands they perceive positively (3), neutrally (2), or negatively (1) out of a set of competitor brands. The final consumer brand perception metric is then transformed to an index ranging from 100 to 300 combining all variables. Prior research has shown that these six combined variables pass all tests on item reliability and construct validity (e.g., Luo, Raithel, and Wiles 2013). Additionally, to investigate the consumer brand metrics separately all six variables are measured individually, also running from 100 to 300. This study uses 8.25 years of weekly consumer brand perception data from January 2008 to March 2015. Weekly data are used for two reasons. *First*, the weekly individual brand ratings are based on a large sample of at least 400 responses, which helps reduce sampling error. *Second*, the consumer market may not react immediately to news but with a time lag of a few days (Backhaus and Fischer 2016). For more details on the measurement, see Appendix 1.

4.2 Stock Return Data

Stock return data are from Thomson Reuters and are from only companies that are primarily listed in Germany. This selection aligns with both the analysis of CSR news coverage and consumer brand perception. As mass media are assumed to have a crucial impact on stock returns, a CSR activity must be reported in domestic newspapers. The dataset excludes stock markets in other countries because collecting information on whether and how CSR activities are reported in the news of other countries is beyond the scope of this study.

4.3 Favorable Media Coverage of CSR Activities

From the Lexis Nexis database, CSR activities were identified through a comprehensive media search in eight leading online and offline media sources[21] in Germany following Flammer's (2013) procedure. A pre-tested list of keywords associated with CSR (see Appendix 2) was used to check the news by combining a brand name and CSR specific keywords. This process investigated the 600 brands provided by YouGov from January 2008 to March 2015 day by day. In principle, a CSR activity can occur in the press media each day, implying that for the brands covered in this observation period more than 1.8 million brand–day combinations were available to search. In total, 298 activities were identified, including the exact date when the CSR activity was first reported in news media.

Confounding events were also identified through Lexis Nexis. Confounding events are any news of a company that appears at nearly the same time as the CSR activity (McWilliams and Siegel 1997) that may affect consumer brand perception and stock returns. Besides typical items used in finance studies (e.g., earnings announcements, mergers and acquisitions, large investments; McWilliams and Siegel 1997), this identification included consumer-related news (e.g., product releases, layoffs, brand crisis, organizational changes) that received the attention of at least three media outlets from 3 days prior to 7 days after the CSR

[21] The following media outlets were analyzed: *Die Welt, Welt Online, Focus, Frankfurter Rundschau, Der Spiegel, Spiegel Online, taz, Werben und Verkaufen*.

activity was first reported in the press. Identification of confounded events led to removal of 114 CSR activities. Ultimately this study investigated 183 CSR activities by 77 brands to analyze how CSR activities affect consumer brand perception. The analysis on stock returns assessed only the activities of companies that are primarily listed in Germany. Overall, 36 CSR activities by 16 companies remained for the stock market analysis after exclusion of confounded events.

4.4 Variable Operationalization and Descriptive Statistics

Table 2 provides descriptive information about the sample and the operationalization of the variables. Appendix 3 gives an overview of the activities used in the empirical model. Data on control and moderator variables came from various data sources. Prior brand reputation is measured as the mean of the BrandIndex across the two weeks before the activity takes place. *CSR type I* (time horizon) is coded as a dummy variable based on a content analysis of the newspaper articles. *CSR Type II* (target group) is also coded as dummy variable indicating whether CSR activity is related to environmental, consumer, society, or employee issues. Note that articles that could be classified by more than one issue were not identified. *CSR Type III* (i.e., proactive and reactive CSR activities) and *region of CSR activity* (i.e., national country, foreign industrialized country, foreign developing country, and no region mentioned) are also coded as dummy variables. For each variable, three research assistants independently read every report related to a CSR activity and assigned a CSR activity to the specific categories. Inter-rater reliability exceeded 95%. Remaining inconsistences were solved via discussion.

Media presence counts the number of media sources that report an activity (Cleeren, van Heerde, and Dekimpe 2013). *Product type* follows the common classification of goods as retailer, services, durables, and non-durables. *Market value of equity* is measured by multiplying the number of outstanding shares with stock prices. *Operating margin* is

measured as the ratio of net income before depreciation to sales. *Financial leverage* is measured as a ratio of total liabilities to total assets. In addition, *consumer brand perception changes* identifies how investors' reaction is determined by consumer reactions and required calculation of abnormal BrandIndex returns in the event week (see methodology).

Table 2: Summary Descriptives

Variables	Description	Source	N	Mean	Max	Min	SD
Dependent variables							
Consumer brand perception	Index running from -100 to +100 aggregated across 6 brand dimensions (= BrandIndex)	YouGov	3844 (183 Events)	14.62	58.4	-39.9	16.72
Stock return	Stock return of companies that are primarily listed in Germany	Compustat	7957 (36 Events)	-.002	.67	-2	.062
CSR characteristics							
Media presence	Number of media outlets that report CSR activity	Nexis	8	1.4	5	1	.81
CSR Type I							
Short-term activity	Dummy for occurrence	Press research	61	33.33%	-	-	-
Long-term activity	Dummy for occurrence		122	66.67%	-	-	-
CSR Type II							
Environment	Dummy for occurrence	Press research	108	59.02%	-	-	-
Employees	Dummy for occurrence		10	5.46%	-	-	-
Consumers	Dummy for occurrence		12	6.56%	-	-	-
Society	Dummy for occurrence		53	28.96%	-	-	-
CSR Type III							
Proactive	Dummy for occurrence	Press Research	162	88.52%	-	-	-
Reactive	Dummy for occurrence		21	11.48%	-	-	-
Region (control)							
No specific region mentioned	Dummy for occurrence	Press Research	44	24.04%	-	-	-
National country	Dummy for occurrence		115	62.84%	-	-	-
Foreign industr. country	Dummy for occurrence		8	04.37%	-	-	-
Foreign developing country	Dummy for occurrence		16	08.74%	-	-	-
Brand characteristics							
Brand reputation	1-month average BrandIndex prior to focal CSR event	YouGov	183	14.88	55.5	-38	16.98
Product Type (control)							
Durables	Dummy for product type	MSCI GICS	59	32.24%	-	-	-
Non-Durables	Dummy for product type		21	11.48%	-	-	-
Retail	Dummy for product type		24	13.11%	-	-	-
Services	Dummy for product type		79	43.17%	-	-	-
Market value of equity[a] *(control)*	Outstanding share multiplied by stock price (one month before CSR activity occured)	Thomson Reuters	36	14578	84346	1	21177
Operating margins[a] *(control)*	Ratio of net income before depreciation to sales (calendar year before) in 100 thousand	Compustat	36	.17	.54	.02	.14
Financial leverage[a] *(control)*	Ratio of total liabilities to total assets (calendar year before)	Compustat	36	.74	.97	.38	.15

Note: [a] Data only available for stock market analysis.

5 Methodology

The methodology of an event study was applied to investigate the impact of CSR activities on consumer brand perception and stock returns, with a moderation analysis used to investigate the drivers of CSR effects. Event studies are widespread in the marketing literature in a multitude of applications (Sorescu, Warren, and Ertekin 2017). An event study allows assessment of whether a change in stock price (alternatively, a brand perception index) has occurred randomly or can be explained by the CSR activity. Therefore, this study forecasts the stock returns (alternatively, brand perception returns) that would be expected if the event did not take place and compare them to the realized returns. If these abnormal returns are statistical significant, this study shows that a CSR activity reported in public media has an impact on stock returns (brand perception).

5.1 Impact of CSR Activities on Consumer Brand Perception

Abnormal brand perception returns. Weekly forecasts of the expected returns of the BrandIndex ($E(R^{BI})$) are compared to actual BrandIndex returns (R^{BI}), with analysis of the brand returns to make brands comparable. The differences between the expected and the actual returns represent the abnormal BrandIndex returns (AR^{BI}). Expected returns were forecast using a constant-mean-return model[22] (e.g., Elberse 2007). Also the non-stationary augmented Dicker-Fuller time-series tests suggest using a constant-mean-return model: No support was found for the existence of unit roots. The expected returns are estimated by the arithmetic mean of the weekly returns in the estimation window for CSR activity *i* and period *w* (equation 1). Abnormal returns are then calculated (equation 2).

$$\mathrm{E}(\mathrm{R}_{iw}^{BI}) = \frac{1}{w}\sum_{w=-21}^{-1} \mathrm{R}_{iw}^{BI} \qquad \mathrm{AR}_{iw}^{BI} = \mathrm{R}_{iw}^{BI} - \mathrm{E}(\mathrm{R}_{iw}^{BI}) \qquad (1, 2)$$

[22] Note that this analysis investigates the impact of CSR activities on a consumer-related index and does not constitute an economic theory justifying forecast models such as the Fama-French or CAPM-model.

Event and estimation window. Expected returns are estimated using a period of 20 weeks before the event takes place. Since extending the estimation window would drastically reduce the number of events as well as the forecast quality of the expected returns, the estimation window is not extended. To ensure the robustness of the results, the estimation window varies. The event window lasts two weeks (t = 0 and t = 1). To avoid potential confounding events and to preserve the impact of CSR activities, the event window is not extended (MacKinlay 1997).

Test-statistics. A t-test determines whether the average abnormal returns (equation 3) across all CSR activities are significant. Non-parametric tests ensure robustness (see robustness section).

$$\mathrm{AAR}_w^{BI} = \frac{1}{N}\sum_{i=1}^{I} \mathrm{AR}_{iw}^{BI} \tag{3}$$

5.2 Moderating Analysis Concerning Consumer Brand Perception

To examine moderating effects, the individual abnormal BrandIndex returns of CSR activities *i* in the event week (*w* = 0 or *w* = 1) are explained by estimating a cross-sectional model (see equation 4):

$$\begin{aligned}\mathrm{AR}_{iw}^{BI} = \beta_0 + \beta_1\,\mathrm{MediaPresence}_i + \sum_k^K \beta_{2k}\,\mathrm{CSRtypes}_{ik} + \\ \beta_3\,\mathrm{PriorReputation}_i + \sum_v^V \beta_{4v}\,\mathrm{ControlVariables}_{iv} + \varepsilon_{iw}\end{aligned} \tag{4}$$

The parameter β_0 denotes the intercept, β_1, β_{2k}, β_3, and β_{4v} are the regression estimates and ε_{iw} denotes the error term, which is assumed to be normally distributed. Index *k* comprises several CSR types. Index *v* comprises the control variables including the region of the CSR activity and product type. Dummies for the reference categories are excluded for identification purposes, and a brand-specific error term is integrated to control for unobserved heterogeneity across brands. Multiple firms have multiple CSR activities, which may lead to correlated error terms. However, as the brand-specific error term turns to be insignificant (Appendix 4), ordinary least squares (OLS) are used to estimate the model.

5.3 Impact of CSR Activities on Stock Returns

Abnormal stock market returns. As with the consumer analysis, the analysis forecasts expected stock market returns ($E(R^{SM})$), compares them to realized stock market returns (R^{SM}), and calculates abnormal stock market returns (AR^{SM}). In contrast to the consumer analysis, the returns are forecast on the basis of daily data, and the expected returns are forecast according to the market model of Brown and Warner (1985). Multiple studies have shown the validity and appropriateness of using the market model to estimate stock market reactions. The model is based on the assumption of a linear and constant relationship between firm-specific parameters (α and β) and the returns of a market index (R_{md}) on day d (see equation 5). As the market index, this analysis uses the German CDAX, which is one of the most representative indices for stock market movements in Germany.

$$AR_{id}^{SM} = R_{id}^{SM} - E\left(R_{id}^{SM}\right) = R_{id}^{SM} - (\alpha_i + \beta_i R_{md}^{SM}) \quad (5)$$

Event and estimation windows. In line with previous research (Sorescu, Warren, and Ertekin 2017), expected returns are estimated using a period of 200 days. Through a 10-day time lag between the event and estimation windows, the study additionally investigates whether investors are aware of the CSR event before it is reported in the news. In the event window, the analysis first cumulates the abnormal returns (CAR^{SM}) across the event days a and b (see equation 6) and then calculates the cumulative average abnormal returns ($CAAR^{SM}$) across all brands to determine significance (equation 7). Calculations of different event windows (a, b) are run to account for time differences in the reaction to events. Selection of the final event window is based on the most significant results (e.g., Homburg, Vollmayr, and Hahn 2014).

$$CAR_i^{SM}[a, b] = \sum_{d=a}^{b} AR_{id}^{SM} \qquad CAAR^{SM}[a, b] = \frac{1}{N} \sum_{i=1}^{N} CAR_i^{SM}[a, b] \quad (6, 7)$$

Test statistics. Again, a standard t-test and additional non-parametric tests determine whether the CAAR across all CSR activities is significant.

5.4 Relationship of Consumer Brand Perception Changes and Stock Returns

To examine moderating effects, the individual cumulative abnormal stock market returns of CSR activities *i* across the event window (i.e., a to b) are explained by estimating a cross-sectional model (see equation 8):

$$\mathrm{CAR}_i^{SM}[\mathrm{a,b}] = \beta_0 + \beta_1\,\mathrm{MediaPresence}_i + \beta_2\,\mathrm{AR}_i^{BI} + \sum_v^V \beta_{3v}\,\mathrm{ControlVariables}_{iv} + \varepsilon_i \quad (8)$$

Again, the parameter β_0 denotes the intercept, β_1, β_2, and β_{3v} are the regression estimates, and ε denotes the error term, which is assumed to be normally distributed. Index *v* comprises a wide range of control variables, including CSR- and firm-related variables. Dummies for the reference categories are excluded for identification purposes. AR_i^{BI} represents the consumer brand perception changes to CSR activities in event week 1, allowing analysis of how investors consider consumer responses. Again, a brand-specific error term is integrated. As it turns out to be insignificant (see Appendix 4), OLS is used to estimate the model.

5.5 Identification Strategy and Sampling Issues

The identification strategy relies on the assumption that the analysis covers a large number of CSR activities that vary strongly across brand and CSR characteristics. In fact, the brands and the CSR activities in the sample differ significantly across brand strength values, CSR event types, industry, and the like (see Table 1). Furthermore, this study relies on the assumption that a CSR activity must be reported in public media to have an effect on consumers and stock returns—a strategy that risks overlooking CSR activities that are not covered by public media. However, as media coverage is the critical driver of impact on society, consumers, and investors (Hewett et al. 2016), this focus is not considered to be a critical limitation.

Nevertheless, an additional analysis estimates a sample selection model (Heckman 1979) to control for variables that drive journalists to choose CSR stories from among newsworthy events. Journalist may prefer to report CSR activities about firms that are already well-known

and more familiar to a larger proportion of the readership (Harcup and O'Neill 2001), facilitating readers' processing of new information regarding the story. Furthermore, large firms in particular have the financial resources to establish and maintain good relationships with editors and influence editorial content.

Estimation of a selection equation requires a selection of brands that are involved in CSR activities but are not covered in the public press. Through a random sample of 44 brands, further CSR activities that are not reported in public press media were identified through Google search or the company's website. The sample selection equation uses the prior brand reputation, product type, and Google Trends to forecast whether the CSR activities of brands are covered by public media. Google Trends is a normalized index for search volume data and has been used in prior research (Stephen and Galak 2012). It informs journalists and editors which topics are currently demanded by consumers. The variables turn out to be strong predictors for media coverage of CSR. Inclusion of the inverse Mills ratio retrieved from the selection equation in the main model estimation does not reveal an impact on the results (Appendix 5).

6 Results

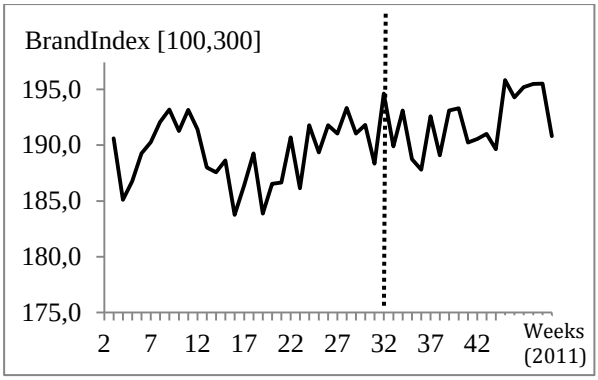
6.1 Model-free Evidence

Results provide some first insights into how CSR activities are reported in public media and describe how news on CSR activities affects consumer brand perception and stock returns. Media coverage of CSR shows a rich variance across CSR types, with 33% short-term activities and 67% long-term activities. Furthermore, most identified CSR activities deal with environment-related issues (59%), followed by society-related (29%), consumer-related (7%), and employee-related (5%) issues. This finding represents the rising demand for environmental sensitivity across business activities. Managers seem to recognize the strategic

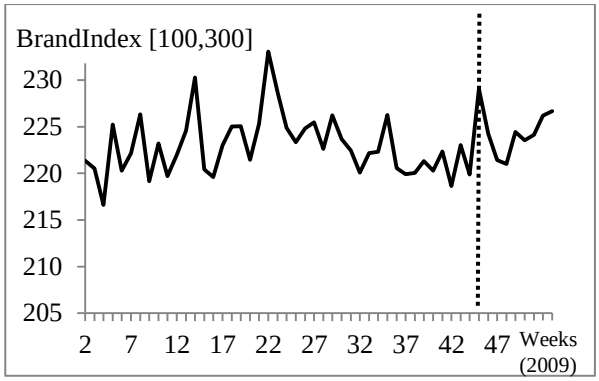
importance of environmental management (Flammer 2013). Further, public media mostly report on proactive (89%) rather than reactive activities (11%). Overall, CSR activities are reported with a daily occurrence rate of .02% (298 CSR activities divided by 1.8 million potential occurrences). Given that 95% of companies participate in CSR activities of some form (KPMG 2017), this percentage seems rather low. Nevertheless, 183 activities in total[23] is an impressive number to investigate the effects of CSR activities.

Figure 2: CSR Impact on BrandIndex by Examples

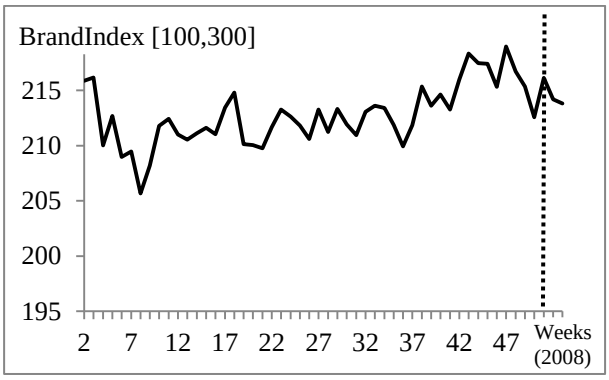
Example I: RWE (German energy supplier)
RWE provides green energy for public trains
Date: 24/07/2011 (calendar week 32)



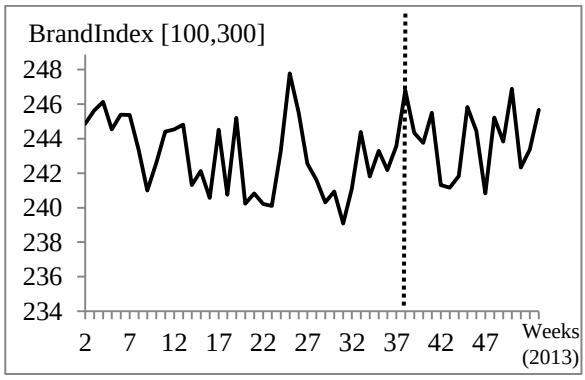
Example II: Edeka (German food discounter)
Edeka about to offer only "sustainable" fish
Date: 01/11/2009 (calendar week 45)



Example III: Sparkasse (German bank)
Sparkasse donates for disabled persons
Date: 14/12/2008 (calendar week 51)



Example IV: Google (technology company)
Google wants to fight diseases with new firm
Date: 15/09/2013 (calendar week 38)



Model-free evidence indicates a positive effect. Figure 2 shows the level of consumer brand perception (= BrandIndex) over time, before and after the CSR activity was reported in the press. For example, in November 2009, the German food discounter Edeka announced

[23] The 183 activities relates to the number of activities after the consideration of confounding events.

that it would begin offering only seafood from sustainable fishing. The BrandIndex jumped by 9 points compared to the week before. When the German bank Sparkasse announced that it would donate for disabled persons, the BrandIndex jumped by 5.5 points compared to the week before. In addition, the average abnormal BrandIndex returns of .21% in the event week and the average abnormal stock returns of .50% on the event day indicate a positive impact of CSR activities on performance measures. Results also provide first insights on the effects of moderating and control variables. For this purpose, the sample was split into groups that scale high and low on a variable. For categorical variables, groups are already defined, and Table 3 represents the abnormal returns for these subsamples. The results are highly consistent with expectations.

Table 3: Model-free Evidence

DV: Abnormal brand perception (BrandIndex) returns in event week 0		$AAR_{w=0}^{BI}$	P-Value	Standard Error	N
Overall sample		.21%**	.037	(.001)	183
Subsamples:					
Media presence:	Activities with low media presence[1]	.17%*	.094	(.001)	171
	Activities with high media presence	.72%*	.068	(.004)	12
CSR type I: (Time horizon)	Short-term activities	-.03%	.876	(.002)	61
	Long-term activities	.33%***	.008	(.001)	122
CSR type II: (Target groups)	Environmental issues	.25%*	.053	(.001)	108
	Employee related issues	-.31%	.435	(.004)	10
	Consumer related issues	-.04%	.891	(.004)	12
	Society related issues	.28%	.146	(.002)	53
CSR type III: (Reaction)	Proactive activities	.27%**	.011	(.001)	162
	Reactive activities	-.28%	.315	(.003)	21
Region:	Activities with no specific region	-.24%	.235	(.002)	44
	National activities	.40%***	.001	(.001)	115
	Activities in other industrialized country	-.41%	.508	(.006)	8
	Activities in developing country	.37%	.297	(.004)	16
Prior brand reputation:	Activities from low reputation brands[2]	.68%***	.001	(.002)	43
	Activities from high reputation brands	.06%	.586	(.001)	140
Product type:	Activities conducted by durable brands	-.00%	.976	(.002)	59
	Activities conducted by non-durable brands	.23%	.348	(.002)	21
	Activities conducted by retail brands	.58%**	.046	(.003)	24
	Activities conducted by services brands	.25%	.109	(.002)	79

Notes: ***** $p < .1$, ****** $p < .05$, ******* $p < .1$ based on two-sided t-test; based on estimation window of 20 weeks;
[1]Low media presence: one or two media outlets, high media presence: at least three media outlets;
[2]Low brand reputation: values [-100, 0]; high brand reputation: values [0, 100].

6.2 Main Impact on Consumer Brand Perception and Stock Returns

The results of the event study appear in Table 4 and Table 5. Table 4 reveals an overall significantly positive effect of CSR activities on consumer brand perception ($AAR_{w=0}^{BI}$ = .21%, $p < .05$). This result is consistent with prior research on consumer attitudinal responses to CSR activities. Results do not show abnormal brand perception returns in the second event week (w = 1). Consumers thus react to the news immediately, within one week. Further, separate investigation of the brand dimensions reveals a positive impact of CSR activities on brand impression ($AAR_{w=0}^{Impression}$ = .55%, $p < .01$). Findings show no impact on brand quality, satisfaction, recommendation, identification, or value in the event weeks[24] ($p > .05$).

Table 4: Main Impact of CSR Activities on Brand Perception Metrics

DV:	**Abnormal brand perception returns in percentage**		**Returns of single brand dimension metrics (*s*)**									
w (weeks)	**Overall** AAR_w^{BI}	(SE)	**Impression** AAR_w^s	(SE)	**Quality** AAR_w^s	(SE)	**Satisfaction** AAR_w^s	(SE)	**Recommend** AAR_w^s	(SE)	**Identification** AAR_w^s	(SE)	**Value** AAR_w^s	(SE)
-1	-.18	(.10)	.02	(.23)	.12	(.22)	.33**	(.18)	.02	(.23)	-.10	(.23)	.36	(.23)
0	.21**	(.10)	.55***	(.23)	-.02	(.22)	.08	(.18)	.19	(.23)	-.18	(.23)	.11	(.23)
1	.00	(.09)	-.41	(.24)	.31	(.22)	-.05	(.18)	-.21	(.23)	.05	(.23)	.28	(.23)

Notes: ** $p < .05$, *** $p < .01$ (one-sided); OLS(t-test); Standard errors in parentheses in percentage; N(events) = 183. For the analysis one week prior the event, the abnormal brand returns were estimated on the basis of a time window starting two weeks prior the event.

Table 5: Main Impact of CSR Activities Impact on Stock Returns

DV: Abnormal stock price returns in percentage								
d (days)	AAR_d^{SM}	$CAAR^{SM}$[-3,3]	(SE)	$CAAR^{SM}$[-2,3]	(SE)	$CAAR^{SM}$[-1,3]	(SE)	$CAAR^{SM}$[0,3]	(SE)
-3	.31	.31	(.37)						
-2	.00	.31	(.37)	.00	(.37)				
-1	.06	.37	(.37)	.06	(.37)	.06	(.37)		
0	.50	.87**	(.38)	.56	(.38)	.56	(.38)	.50	(.38)
1	.29	1.16***	(.38)	.85**	(.38)	.85**	(.38)	.79**	(.38)
2	-.15	1.00***	(.38)	.70	(.38)	.70	(.38)	.64	(.38)
3	-.29	.71	(.38)	.40	(.38)	.40	(.38)	.34	(.38)

Notes: ** $p < .05$, *** $p < .01$ (one-sided); OLS(t-test); standard errors in parentheses in percentage; N(events) = 36.

[24] Results also offer significant positive AARs of the satisfaction index one week prior to when the CSR activity was reported in the news. However, this result may be caused by confounding events.

Results also show significant positive effects of CSR activities on stock returns for several event windows (Table 5). The most significant CAARs lie in the event window of -3 to 1 ($CAAR^{SM}$ = 1.16%, $p < .01$), similar to prior research (Sorescu, Warren, and Ertekin 2017). This result may indicate that a few investors already appreciate CSR activities before they are reported in the newspaper. Nonetheless, the AARs are not significant prior to the first reporting date of the CSR activity ($p > .05$).

6.3 Conditions that Drive Consumer Brand Perception

Table 6 represents the results of the moderator analysis concerning the drivers of the impact on consumer brand perception and brand impressions. The results of the two models are highly consistent. Several statistical premises of linear regressions such as multicollinearity, heteroscedasticity, and normal distribution of residuals revealed no problematic issues. The average adjusted R^2 of .121 is comparable to other studies that use real data in cross-sectional settings (Wooldridge 2016). Results offer support for differences in the impact of CSR activities (F-test, $p < .01$).

Several characteristics drive the impact of reported CSR activities on consumer brand perception. Consistent with expectations, results offer strong support for the role of media coverage ($\beta = .004$, $p < .10$). Media coverage is by far the greatest driver of a CSR action's impact, as the standardized coefficient is larger than the coefficient of any other variable. Also, results support the effectiveness of long-term CSR activities. Consumers seem to appreciate long-term activities and therefore raise the value of a brand ($\beta = .005$, $p < .05$). Further, CSR activities concerning environmental ($\beta = .008$, $p < .10$) and society issues ($\beta = .009$, $p < .10$) have a more positive impact on consumer brand perception than activities concerning employees and consumers. Consistent with expectations, proactive CSR activities have a greater impact on consumer brand perception than reactive activities ($\beta = .008$, $p < .05$).

Table 6: Drivers of Brand Perception Metrics

DV: Abnormal brand perception returns in event week 0		Scale	Expected sign	Model I Overall brand perception Estimated Coefficient	(SE)	Model II Brand impression dimension Estimated Coefficient	(SE)
Intercept				-.028***	(.006)	-.042***	(.016)
CSR characteristics							
Media presence		[metric]	+	.004***	(.001)	.007**	(.003)
CSR type I:	Short-term activity (*base*)						
	Long-term activity	[dummy]	+	.005**	(.002)	$.4x10^{-3}$	(.006)
CSR type II:	Employees (*base*)						
	Environmental	[dummy]	+ / -	.008*	(.005)	.020*	(.012)
	Consumers	[dummy]	+ / -	.006	(.006)	.004	(.015)
	Society	[dummy]	+ / -	.009*	(.005)	.020	(.013)
CSR type III:	Reactive activity (*base*)						
	Proactive activity	[dummy]	+	.008**	(.004)	.002	(.009)
Region of CSR activity: (*Control variable*)	No specific region mentioned (*base*)						
	National country	[dummy]		.007**	(.003)	.011***	(.007)
	Foreign industrialized country	[dummy]		.002	(.005)	.013	(.013)
	Foreign developing country	[dummy]		.012***	(.004)	.018	(.010)
Brand characteristics							
Prior brand reputation		[metric]	-	$-.1x10^{-3}$*	($.7x10^{-4}$)	$-.3x10^{-3}$**	($.1x10^{-3}$)
Product type: (*Control variable*)	Services (*base*)						
	Durables	[dummy]		.003	(.003)	.012	(.008)
	Retailer	[dummy]		.008**	(.004)	.019**	(.008)
	Non-durables	[dummy]		.007**	(.003)	.015	(.009)
N (events):183; N (brands): 77		Adj. R^2		.121		.070	

Notes: * $p < .1$, ** $p < .05$, *** $p < .01$ (two-sided t-test); OLS (t-test); Standard errors in parentheses; Note, most of the analyzed brands are not traded on stock markets. Thus, further finance-related control variables are not included in this analysis.

Region was included as a control variable. CSR activities that take place in developing countries have a strong positive effect on consumer brand perception ($\beta = .012$, $p < .01$). Furthermore, activities that take place in consumers' residential region have the second strongest impact on consumer brand perception compared to activities where no region is stated ($\beta = .007$, $p < .05$). Thus, a CSR event occurring on the consumer's doorstep seems to be more relevant for consumers than an event occurring in an unknown area.

Brand and firm characteristics also drive the impact of CSR on consumer brand perception. In particular, companies with a weak brand reputation can benefit from CSR

activities (β = -.0001, p < .10). Differences also occur across product types. The positive effect is smaller for companies that offer services than for companies that offer retail goods (β = .008, p < .05) and non-durables (β = .007, p < .05).

6.4 Relationship of Brand Perception Changes and Stock Returns

Table 7 presents the results of the moderator analysis concerning the impact of CSR on stock returns. Four model variants were estimated. Model 1 includes only the focal variables consumer brand perception changes and media presence. Model 2 adds all CSR- and firm-specific characteristics as control variables, whereas Model 3 combines only the focal variables with firm characteristics, and Model 4 combines the focal variables with CSR characteristics. In none of the models does evidence appear for the moderating impact of media presence on stock returns (p > .10), nor does support emerge for the impact of consumer brand perception changes on stock returns (p > .10). Even though CSR activities have a positive impact on consumer brand perception and stock returns, consumers and shareholders still different feel on what kind of CSR activities companies should implement. Additionally, the study reveals no significant moderating effects concerning CSR characteristics (p > .10).

Surprisingly, brand reputation has a controversial effect on stock returns compared to its impact on consumer brand perception: Previous strong brand reputation has a positive impact on stock returns (β = .002, p < .05). A positive coefficient indicates that stock price rises with an increase in prior brand reputation. Furthermore, results reveal significant effects of product type and operating margins. CSR activities of companies that produce non-durables induce a stronger positive effect than CSR activities of companies that produce durables (β = .131, p < .01). Results also reveal strong support for the moderating role of operating margins (β = .215, p < .01).

Table 7: Drivers of Stock Return

DV: Cumulative abnormal average stock returns from event day -3 to day 1		**Model I** Only focal variables		**Model II** Focal variables incl. all control variables		**Model III** Focal variables incl. firm characteristics		**Model IV** Focal variables incl. CSR characteristics	
	Expected sign	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Intercept		.022	(.014)	-.059	(.084)	-.037	(.046)	.047	(.061)
Consumer brand perception changes	+	-.048	(.536)	.223	(.566)	-.087	(.433)	-.008	(.619)
CSR characteristics									
Media presence	+	-.006	(.006)	.005	(.007)	.003	(.005)	-.001	(.009)
CSR type I: Short-term activity(*base*)		-	-	-	-	-	-	-	-
(*control variable*) Long-term activity		-	-	-.029	(.020)	-	-	-.032	(.022)
CSR type II: Employees (*base*)		-	-			-	-	-	-
(*control variable*) Environmental		-	-	-.014	(.048)	-	-	-.033	(.038)
Consumers		-	-	-.023	(.054)	-	-	.019	(.042)
Society		-	-	-.057	(.048)	-	-	-.052	(.041)
CSR type III: Reactive activity (*base*)		-	-	-	-	-	-	-	-
(*control variable*) Proactive activity		-	-	.037	(.037)	-	-	.019	(.044)
Region No spec. region (*base*)		-	-	-	-	-	-	-	-
of CSR event: National country		-	-	-.014	(.023)	-	-	.004	(.022)
(*control variable*) Foreign ind. country		-	-	-.006	(.048)	-	-	-.002	(.052)
Foreign dev. country		-	-	-.062	(.056)	-	-	.035	(.067)
Brand / firm characteristics									
Prior brand reputation (*control variable*)		-	-	.002**	(.001)	.001*	(.001)	-	-
Product type **:** Durables (*base*)		-	-	-	-	-	-	-	-
(*control variable*) Services		-	-	.101**	(.045)	.048	(.034)	-	-
Retailer		-	-	.088	(.077)	.060	(.048)	-	-
Non-durables		-	-	.131***	(.038)	.103***	(.029)	-	-
Market value of equity (*control variable*)		-	-	$1.0x10^{-13}$	($3.5x10^{-13}$)	$5.4x10^{-14}$	($3.2x10^{-13}$)	-	-
Financial leverage (*control variable*)		-	-	-.082	(.072)	-.067	(.061)	-	-
Operating margins (*control variable*)		-	-	.215***	(.081)	.197***	(.061)	-	-
N (events) = 36, N (companies): 16, Adj. R^2		-.033		.347		.402		-.036	

Notes: * p < .10, ** p < .05, *** p < .01 (two-sided t-test); OLS (t-test).

6.5 Robustness Checks

Several additional analyses checked whether the estimation results are robust. *First*, the length of the estimation window was varied. The impact on consumer brand perception and stock return are consistently positive and significant (i.e., 5-week estimation window: $AAR^{BI}_{w=0}$ = .20%, p < .05; 10-week window: $AAR^{BI}_{w=0}$ = .20%, p < .05; 15-week window: $AAR^{BI}_{w=0}$ = .20%, p < .05; 100-day window: $CAAR^{SM}$[-3,1], p < .10). An additional moderation analysis investigating the drivers of brand perception changes was run using the

AARs received from the 10-week estimation window. The results are highly consistent with the reported results (see Appendix 6). *Second*, several additional statistical tests determined the significance of the abnormal BrandIndex and stock price returns (Mann-Whitney U-test for $AAR_{w=0}^{BI}$, p <.10 and $CAAR^{SM}$[-3,1], p < .10; Mood's median test for $AAR_{w=0}^{BI}$, p < .10 and $CAAR^{SM}$[-3,1], p = .25 and the Kruskal-Wallis test for $AAR_{w=0}^{BI}$, p < .10 and $CAAR^{SM}$[-3,1], p < .10). *Third*, two new variables were added to the moderation analysis: A dummy variable differentiating between corporate brands (e.g., Coca Cola) and sub-brands (e.g., Fanta) and a dummy variable to account for a change in the data collection procedure by YouGov in June 2013 (see Appendix 6). Even though the change was modest, the study thereby controls for a potential measurement bias. The incremental F-test indicates that neither of the two variables was relevant (see Appendix 6). In this context, the sample was divided into subsamples according to the data collection procedures. Results stay constant (see Appendix 6). *Fourth*, results of a sample selection equation controlling for the CSR activities that are likely to be reported on do not lead to other conclusions (see Appendix 5). *Finally*, results of a model including brand-specific fixed effects stay constant (see Appendix 7).

7 Discussion

7.1 Conclusions

This analysis reveals interesting and novel insights into CSR-related activities. Results show a positive impact of favorable media coverage of CSR activities on overall consumer brand perception and stock returns. This finding is consistent with theoretical expectations drawn from stakeholder and agenda-setting theory. Exploratory investigation of the impact of CSR activities on single brand metrics revealed a positive impact on consumer brand impression, suggesting that CSR activities induce a generally positive feeling about a brand.

Besides finding a positive main effect of CSR activities on consumers and investors, this study also identifies conditions under which the effect is stronger or weaker. The positive effect on overall consumer brand perception is driven mainly by a strong media presence, long-time CSR activities, society- and environment-related issues, proactive activities, activities that take place in the home or in foreign developing countries, and activities conducted by companies that have a rather weak brand reputation. Media presence is thereby by far the strongest driver. This result is also consistent with prior research arguing that consumers who receive their information from the newspapers instead of from the company itself have a much better attitude toward the company (Yoon, Gürhan-Canli, and Schwarz 2006).

Surprisingly, investors' perception of CSR activities differs from that of consumers: Results do not show that changes in consumer brand perception moderate stock returns. One reason for the different consumer and investor perceptions of CSR may lie in the fact that investors especially appreciate CSR activities by companies that have a rather strong reputation. In addition, the impact is driven by high operating margins. Both drivers indicate that investors may perceive CSR activities in a positive way only if the company has a high rate of profitability and can "afford" to be engaged in CSR activities. Further, results do not show a significant impact of the moderator media presence on the positive effect on stock returns. This finding should not be confused with the fact that the public media reports have no impact on stock returns. This study indeed shows a positive effect of favorable CSR media coverage of stock returns. However, results do not show that increasing media coverage makes a significant difference, possibly for two reasons. *First*, investors perceive one reporting media outlet as a sufficient signal to positively evaluate the CSR activity. *Second*, the variance (S.D. = 1.2) and sample size (N = 36) are too small to draw meaningful conclusions.

7.2 Managerial Implications

These findings have major implications for managers. First and most important, companies should understand that by implementing CSR they can enhance not only consumer brand perception but also financial measures of a firm. Study results offer specific guidance on how companies can successfully implement CSR activities. The results imply that the essential driver of the positive impact of CSR activities is media presence. Thus, companies should bring their CSR activities to the news and explicitly use press reports and interviews to influence how people think about a brand. CSR activities should be reported in as many newspaper outlets as possible. The more media pick up the CSR activity, the greater the chance that it becomes successful. For example, companies could build up good relationships with journalists by establishing an effective PR department.

Further, the results of the study give specific guidance to managers on which CSR types they should implement. *First*, CSR activities should have a long-term character (e.g., long-time cooperation with NGOs) rather than a short-term character (e.g., donation to a catastrophe). *Second*, companies should concentrate on proactive CSR activities, which are more likely to have a more novel and surprising character than reactive activities. *Third*, companies need to join the trend of being environmentally responsible, as CSR activities concerning the environment especially influence how people think about a brand.

In addition, to achieve a positive impact, companies should communicate where their CSR activities take place. Thus, managers should make sure that the press reports include information about the region of the CSR activity. CSR activities that take place in the home country or foreign developing country have the strongest positive impacts.

Concerning the financial impact of CSR activities, companies still seem to face a challenge in explaining to their shareholders why and how they implement CSR activities. Even though CSR activities have a positive impact on stock returns, this impact is not

determined by the consumer response. Managers of companies with a weak reputation should therefore also point out to their investors that their CSR activities boost consumer perception and thereby have the chance to increase future cash flows.

7.3 Limitations and Avenues for Further Research

While this study offers significant insights into how to deal with CSR, it also has limitations. *First*, this study is limited to consumers in Germany, and prior research shows that German consumers are more likely to appreciate a company's social activities than consumers from other countries (Maignan 2001). Thus, further research can replicate this study in other cultures. *Second*, this study is limited to a small number of brands that are listed on the stock market. The study could be replicated by enlarging the sub-sample to other datasets, validating the stock market analysis. *Last*, this study uses the methodology of an event study to analyze the impact of positive information in newspapers on consumer brand perception. While event studies have been used to analyze the impact of activities on stock returns, they have not been applied to consumer-related indices. Thus, this study extends the marketing literature and enlarges the pool of scientific tools, and future studies could validate and replicate this methodology.

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APPENDIX PAPER III

THE IMPACT OF FAVORABLE MEDIA COVERAGE OF CORPORATE SOCIAL RESPONSIBILITY ACTIVITIES ON CONSUMER PERCEPTION METRICS AND STOCK RETURNS

In this Appendix, I provide the following information:

1. Additional information on the measurement of consumer brand perception
2. Information on the keywords used to identify relevant CSR activities
3. Overview of the identified CSR activities
4. Estimation results of a model controlling for brand-specific heterogeneity
5. Estimation results of a model controlling for sample selection
6. Various robustness checks
7. Estimation results of a model including brand-specific fixed effects

Appendix 1: Measurement of Consumer Brand Perception

The BrandIndex is a combined measure that consists of six indicators (see Table A.1). All six dimensions load on the same factor (for details see Luo, Raithel, and Wiles 2013). YouGov collects the data as follows: Respondents select all brands for a given industry sector for which they agree to either a positive question (e.g., overall positive brand impression) or a negative question (e.g., overall negative brand impression). All other brands are rated as neutral. The final BrandIndex is then transformed to an Index ranging from 100 to 300 combining all six indicators.

Table A.1
BrandIndex Items (YouGov)

Dimension	Positive question	Negative question
Impression	Overall, of which of the following brands do you have a positive impression?	Now which of the following brands do you have an overall negative impression?
Quality	Which of the following brands do you think represents good quality?	Now which of the following brands represents poor quality?
Value	Which of the following brands do you think represents good value for money? By that we don't mean "cheap," but that the brands offer a consumer a lot in return for the price paid.	Now which of the following brands do you think represents poor value for money? By that, we don't mean "expensive," but that the brands do not offer a consumer much in return for the price paid
Identification / Reputation	Imagine you were looking for a job (or advising a friend looking for a job).Which of the following brands would you be proud to work for. Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for.	Now which of the following brands would you be embarrassed to work for? Imagine you (or your friend) were applying for the same sort of role at the following brands that you currently have or would apply for.
Satisfaction	Of which of the following brands would you say that you are a "satisfied consumer?"	Of which of the following brands would you say that you are a "dissatisfied consumer?"
Recommendation	Which of the following brands would you recommend to a friend or colleague?	And which of the following brands would you tell a friend or colleague to avoid?

Notes: Dimensions are translated into English. Originally the questions are asked in German.

In June 2013, YouGov slightly changed the procedure on how it collects the data. Before June 2013 respondents did not necessarily have to go through all six dimensions. Respondents were randomly assigned to at least one of the six dimensions. However, from June 2013 onwards, consumers need to respond to all six dimensions within a category.

Furthermore, before June 2013 respondents were exposed to all brands within a specific product category, whether or not a respondent was aware of all brands listed in a product category. From June 2013 onwards, consumers are exposed only to the brands they are aware of. Before being exposed to the above listed dimensions, respondents need to select the brands they are aware of (i.e., "Which of the following brands have you ever heard of?").

To avoid a potential response bias, the analysis also rates respondents who are not aware of a brand as neutrals to determine the "new" BrandIndex score. Also, YouGov (2013) recommends such a calculation to make the scores of both time frames comparable. However, this study also runs several robustness checks.

Appendix 2: Keywords Used to Identify Relevant CSR Activities

I searched for potentially relevant media reports on CSR activities in the news media outlets *Die Welt, Welt Online, Focus, Frankfurter Rundschau, Der Spiegel, Spiegel Online, taz, Werben und Verkaufen* using LexisNexis. I submitted the brand or company name together with 258 keywords on typical CSR-related terms. Table A.2 gives an overview about the terms used to identify relevant articles.

Table A.2
Keywords Used by Example

Classification	Number of words	Examples (English)
CSR and synonyms	16	CSR, responsibility, sustainability, philanthropy, citizenship
Social Institutes	80	Unicef, global compact, World vision, Greenpeace
CSR fields	97	Working conditions, environment, welfare, disaster, human rights
CSR instruments	42	Donation, sponsoring, fundraising, cause related marketing
Associated adjectives	23	Green, human, sustainable, eco, renewable
CSR standards	16	Code of conduct, Iso 26000, certification, seal

Notes: Different spellings of words are counted as one word; verb or noun of a word is also counted as one word. Owing to translation from German to English example words might not be appropriate for replication.

Appendix 3: Overview of the Identified CSR Activities

Table A.3
Identified CSR Activities

Week	Year	Brand	CSR activity concerning:
22	2008	Tchibo	Environment
22	2008	Fiat	Environment
23	2008	Galeria Kaufhof	Society
27	2008	Bauhaus	Society
29	2008	e.on	Environment
36	2008	RWE	Environment
37	2008	H&M	Society
45	2008	Opel	Environment
46	2008	Volkswagen	Society
49	2008	Hamburger Sparkasse	Society
51	2008	KfW Bankengruppe	Environment
51	2008	Norma	Environment
51	2008	Sparkasse	Society
7	2009	Philips	Environment
8	2009	Samsung	Environment
8	2009	C&A	Environment
8	2009	H&M	Environment
10	2009	KfW Bankengruppe	Society
9	2010	Philips	Environment
9	2010	British Airways	Environment
10	2010	Tchibo	Environment
11	2010	Commerzbank	Employees
12	2010	IKEA	Society
12	2010	Deutsche Bank	Environment
13	2010	Tchibo	Environment
14	2010	Rewe	Environment
16	2010	BMW	Environment
18	2010	Rewe	Society
18	2010	Frosta	Consumers
19	2010	KfW Bankengruppe	Society
21	2010	Mainova	Society
23	2010	Mainova	Environment
26	2010	Mainova	Environment
26	2010	comdirect	Society
30	2010	Condor	Society
30	2010	Edeka	Environment
31	2010	BMW	Environment
31	2010	Alnatura	Employees
33	2010	Deutsche Bahn	Environment
33	2010	Audi	Environment
37	2010	Rewe	Environment
37	2010	Commerzbank	Society
38	2010	Commerzbank	Society
38	2010	basic	Consumers
40	2010	Alnatura	Employees
44	2010	Tchibo	Environment
45	2010	Mainova	Society
45	2010	Bauhaus	Consumers
50	2010	Sparkasse	Society
52	2010	Audi	Environment
52	2010	Deutsche Post	Society
31	2009	Adidas	Environment
31	2009	Nike	Environment
36	2009	Citroen	Consumers
39	2009	Opel	Environment
40	2009	Audi	Environment
42	2009	Lidl	Environment
45	2009	Edeka	Environment
45	2009	Deutsche Bahn	Environment
49	2009	RWE	Environment
49	2009	Hamburger Sparkasse	Society
50	2009	Sparkasse	Society
51	2009	Condor	Environment
52	2009	Sparda-Bank	Society
2	2010	Sony	Environment
3	2010	Nokia	Society
4	2010	Aldi	Environment
4	2010	DHL	Environment
7	2010	C&A	Environment
13	2011	Frosta	Consumers
15	2011	Mainova	Environment
17	2011	Metro	Employees
17	2011	Google	Environment
17	2011	E-Plus	Environment
17	2011	Activia	Environment
18	2011	Google	Environment
21	2011	E-Plus	Environment
23	2011	Krombacher	Environment
23	2011	Mars	Environment
24	2011	Lufthansa	Society
24	2011	Sparkasse	Society
26	2011	Deutsche Bahn	Society
26	2011	Audi	Environment
27	2011	Dm	Environment
27	2011	McDonald's	Environment
31	2011	BMW	Environment
31	2011	RWE	Environment
34	2011	Honda	Environment
36	2011	Adidas	Environment
36	2011	Vattenfall	Environment
37	2011	Commerzbank	Employees
37	2011	Panasonic	Environment
37	2011	Rewe	Environment
40	2011	Sparkasse	Society
47	2011	Deutsche Bahn	Environment
47	2011	Puma	Environment
50	2011	Mainova	Environment
50	2011	Beck's	Society
51	2011	Sparkasse	Society
52	2011	Karstadt	Society
1	2012	Beck's	Consumers
5	2012	Dr. Oetker	Environment

52	2010	Commerzbank	Society
2	2011	KfW Bankengruppe	Environment
5	2011	Mars	Environment
6	2011	Sparkasse	Society
9	2011	BMW	Environment
11	2011	Google	Society
12	2011	C&A	Environment
18	2012	Sparkasse	Society
18	2012	KfW Bankengruppe	Environment
19	2012	Galeria Kaufhof	Society
21	2012	Sparkasse	Environment
21	2012	KfW Bankengruppe	Society
22	2012	Bridgestone	Environment
24	2012	Edeka	Environment
25	2012	RWE	Environment
26	2012	Volkswagen	Environment
28	2012	Dunlop	Environment
36	2012	KfW Bankengruppe	Environment
39	2012	ING-DiBa	Society
39	2012	Sparda-Bank	Society
44	2012	C&A	Society
48	2012	Zara	Environment
49	2012	BahnCard	Environment
51	2012	Galeria Kaufhof	Society
52	2012	KfW Bankengruppe	Environment
3	2013	Sparkasse	Environment
4	2013	H&M	Environment
5	2013	Bahlsen	Society
7	2013	H&M	Environment
11	2013	KfW Bankengruppe	Society
13	2013	BahnCard	Environment
16	2013	Sparkasse	Society
16	2013	Dove	Society
16	2013	Deutsche Bahn	Environment
20	2013	C&A	Employees
20	2013	H&M	Employees
20	2013	Renault	Environment
21	2013	KiK	Employees
23	2013	Sparkasse	Environment
25	2013	Sparkasse	Society
25	2013	EnBW	Environment

5	2012	KfW Bankengruppe	Environment
7	2012	DPD	Environment
9	2012	BMW	Consumers
12	2012	Sparkasse	Society
16	2012	Puma	Environment
17	2012	Fanta	Society
17	2012	Citroen	Environment
26	2013	IKEA	Society
26	2013	Sparkasse	Society
26	2013	Audi	Environment
27	2013	Sparkasse	Environment
28	2013	H&M	Society
28	2013	Galeria Kaufhof	Employees
36	2013	Aldi	Environment
38	2013	Google	Society
42	2013	MasterCard	Society
44	2013	TUIfly	Environment
48	2013	H&M	Environment
53	2013	Cadillac	Environment
13	2014	Frosta	Environment
15	2014	C&A	Environment
21	2014	Intel	Environment
23	2014	Volkswagen	Environment
24	2014	Coca-Cola	Consumers
25	2014	AMD	Environment
26	2014	Ford	Environment
26	2014	KfW Bankengruppe	Environment
32	2014	EnBW	Environment
39	2014	Coca-Cola	Consumers
39	2014	Pepsi	Consumers
41	2014	H&M	Environment
42	2014	Dove	Society
46	2014	TUIfly	Environment
48	2014	Coca-Cola	Consumers
50	2014	Lidl	Consumers
51	2014	KfW Bankengruppe	Environment
2	2015	Intel	Employees
3	2015	Dm	Environment
4	2015	Dove	Society
8	2015	Deutsche Bank	Environment

Appendix 4: Models Controlling for Brand-specific Heterogeneity

Multiple firms have multiple CSR activities, which may lead to correlated error terms. Therefore, a brand-specific error term is integrated to control for unobserved heterogeneity across brands. However, the brand-specific error term turns to be insignificant (see Table A.4).

Table A.4
Brand-specific Error Terms

DV (Model I): Brand perception returns in event week 0 **DV (Model II): Cumulative average stock returns from event day -3 to today 1**		**Scale**	**Expected sign**	**Model I** Overall brand perception **Estimated Coefficient**	**(SE)**	**Model II** Stock Return **Estimated Coefficient**	**(SE)**
Intercept				-.028 **	(.013)	.022	(.060)
S.D. of brand-specific error term				.0002	(.001)	-.001	(.008)
Changes in brand perception			+	-	-	-.048	(.945)
CSR characteristics							
Media presence		[metric]	+	.004 ***	(.001)	-.006	(.027)
CSR type I:	Short-term activity (*base*)			-	-	a	
	Long-term activity	[dummy]	+	.005	(.003)	-	-
CSR type II:	Employees (*base*)			-	-	-	-
	Environmental	[dummy]	+ / -	.008	(.012)	-	-
	Consumers	[dummy]	+ / -	.005	(.013)	-	-
	Society	[dummy]	+ / -	.009	(.012)	-	-
CSR type III:	Reactive activity (*base*)			-	-	-	-
	Proactive activity	[dummy]	+	.008	(.008)	-	-
Region of	No specific region mentioned (*base*)			-	-	-	-
CSR activity :	National country	[dummy]		.007 *	(.004)	-	-
(*Control variable*)	Foreign industrialized country	[dummy]		.002	(.007)	-	-
	Foreign developing country	[dummy]		.012 **	(.005)	-	-
Brand characteristic							
Prior brand reputation		[metric]	-	-.0001	($.7x10^{-4}$)	-	-
Product type:	Services (*base*)			-	-	-	-
(*Control variable*)	Durables	[dummy]		.003	(.003)	-	-
	Retailer	[dummy]		.007 **	(.003)	-	-
	Non-durables	[dummy]		.008	(.006)	-	-
Market value of equity (*control variable*)		[metric]		-	-	-	-
Financial leverage (*control variable*)		[metric]		-	-	-	-
Operating margins (*control variable*)		[metric]		-	-	-	-
N (events):183; N (brands): 77		Log likelihood		546.23		121.64	

Notes: $p < .10$, ** $p < .05$, *** $p < .01$ (two-sided); standard errors in parentheses; [a] A model with further control variables does not converge.

Appendix 5: Sample Selection Issues

An additional analysis estimates a sample selection model (Heckman 1979) to control for variables that drive journalists to choose CSR stories from among newsworthy events. The sample selection equation uses the variables prior brand reputation, product type, and Google Trends to forecast whether the CSR activities of brands are covered by public media. Inclusion of the inverse Mills ratio retrieved from the selection equation in the main model estimation does not reveal an impact on the results (see Table A.5).

Table A.5
Model Controlling for Sample Selection

DV (Model I): Brand perception returns in event week 0 **DV (Model II): Cumulative average stock returns from event day -3 to today 1**				**Model I** Overall brand perception		**Model II** Stock Return	
		Scale	**Expected sign**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Intercept				-.0289***	(.007)	-.009	(.101)
Lambda (inverse Mills ratio)				.001	(.006)	.035	(.047)
Changes in brand perception			+	-	-	.112	(.449)
CSR characteristics						.0002	(.006)
Media presence		[metric]	+	.003***	(.001)		
CSR type I:	Short-term activity (*base*)			-	-	-	-
	Long-term activity	[dummy]	+	.005**	(.002)	-.007	(.017)
CSR type II:	Employees (*base*)			-	-	-	-
	Environmental	[dummy]	+ / -	.008*	(.005)	-.025	(.037)
	Consumers	[dummy]	+ / -	.005	(.006)	.046	(.043)
	Society	[dummy]	+ / -	.009*	(.005)	-.051	(.039)
CSR type III:	Reactive activity (*base*)			-	-	-	-
	Proactive activity	[dummy]	+	.008**	(.004)	.019	(.029)
Region of	No specific region mentioned (*base*)			-	-	-	-
CSR activity:	National country	[dummy]		.007***	(.003)	.016	(.019)
(*Control variable*)	Foreign industrialized country	[dummy]		.002	(.005)	.005	(.034)
	Foreign developing country	[dummy]		.011***	(.004)	.003	(.045)
Brand/Firm characteristics							
Prior brand reputation		[metric]	-	-.0001	($.8x10^{-4}$)	.001	(.001)
Product type:	Services (*base*)			-	-	-	-
(*Control variable*)	Durables	[dummy]		.003	(.003)	-.027*	(.015)
	Retailer	[dummy]		.007*	(.004)	-.024	(.067)
	Non-durables	[dummy]		.007*	(.004)	.056	(.038)
Market value of equity (*control variable*)		[metric]		-	-	.000	($.2x10^{-12}$)
Financial leverage (*control variable*)		[metric]		-	-	.025	(.056)
Operating margins (*control variable*)		[metric]		-	-	.233***	(.071)
Model I: N (events):183, N (brands): 77			Adj. R2 (2SLS):	.116		.197	
Model II: N (events): 36 N (companies): 16							

Notes: * $p < .10$, ** $p < .05$, *** $p < .01$ (two-sided); 2SLS; standard errors in parentheses.

Appendix 6: Various Robustness Checks

Several additional analyses checked whether the estimation results are robust. An additional moderation analysis investigating the drivers of brand perception changes was run using the AARs received from the 10-week estimation window. The results are highly consistent with the reported results (see Table A.6, model 1). Furthermore, two new variables were added to the moderation analysis: a dummy variable differentiating between corporate brands (e.g., Coca Cola) and sub-brands (e.g., Fanta) (see Table A.6, model 2) and a dummy variable to account for a change in the data collection procedure by YouGov in June 2013 (see Table A.6, model 3). In this context, the sample was divided into subsamples according to the data collection procedures. Results stay constant (see Table A.6, model 4).

Table A.6
Robustness Checks of Moderation Analysis

DV: Brand perception returns in event week 0	**Model 1** (ARs received from 10 weeks estimation window)		**Model 2** (including a dummy for corporate brands)		**Model 3** (including a dummy for measurement changes)		**Model 4** (subsample of "old" BrandIndex measurement)	
	Estimated Coefficient	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**	**Estimated Coefficient**	**(SE)**
Intercept	-.028***	(.007)	-.026***	(.007)	-.026***	(.007)	-.032***	(.007)
CSR characteristics								
Media presence	.004***	(.001)	.004***	(.001)	.003***	(.001)	.004***	(.001)
CSR type I: Short-term activity(*base*)	-	-	-	-	-	-	-	-
Long-term activity	.005**	(.002)	.005**	(.002)	.005*	(.002)	.004	(.003)
CSR type II: Employees (*base*)	-	-	-	-	-	-	-	-
Environmental	.009*	(.005)	.008*	(.005)	.008*	(.005)	.009*	(.006)
Consumers	.006	(.006)	.005	(.006)	.004	(.006)	.000	(.007)
Society	.010*	(.005)	.009*	(.005)	.009*	(.005)	.011*	(.006)
CSR type III: Reactive activity (*base*)	-	-	-	-	-	-	-	-
Proactive activity	.007**	(.004)	.008**	(.004)	.008**	(.004)	.009*	(.005)
Region: No spec. region (*base*)	-	-		-	-	-		
National country	.007***	(.003)	.007**	(.003)	.008***	(.003)	.010***	(.003)
Foreign ind. country	.002	(.005)	.002	(.005)	.002	(.005)	.007	(.007)
Foreign devel. country	.011***	(.004)	.012***	(.004)	.012***	(.004)	.011***	(.005)
Brand / firm characteristics								
Prior brand reputation	-.0001*	(.7x10^{-4})	-.0001*	(.7x10^{-4})	-.0001*	(.7x10^{-4})	-.0002***	(.8x10^{-4})
Product type: Services (*base*)	-	-	-	-	-	-	-	-
Durables	.004	(.003)	.003	(.003)	.004	(.003)	.009***	(.004)
Retailer	.008**	(.003)	.007**	(.003)	.008**	(.003)	.009***	(.004)
Non-durables	.008**	(.004)	.007*	(.004)	.008**	(.004)	.009**	(.004)
New Variables								
Brand type: Sub brand (*base*)	-	-	-	-	-	-	-	-
Corporate brand	-	-	-.002	(.002)	-	-	-	-
Measurement: "Old" BI (*base*)	-	-	-	-	-	-	-	-
"New" BI	-	-	-	-	-.003	(.002)	-	-
Adj. R^2	.116		.119		.122		.144	
N	N = 184		N = 184		N = 184		N = 147	

Notes: * $p < .10$, ** $p < .05$, *** $p < .01$ (two-sided); OLS (t-test); BrandIndex (BI).

Appendix 7: Model Including Brand-specific Fixed Effects

As an additional robustness check, models including brand-specific fixed effects are estimated. Both, the impact of the moderating variables on consumer brand perception and on stock return stay constant (see Table A.7).

Table A.7
Fixed Effects Models

DV (Model I): Brand perception returns in event week 0 **DV (Model II): Cumulative average stock returns from event day -3 to today 1**		**Scale**	**Expected sign**	**Model I** Overall brand perception **Estimated Coefficient**	**(SE)**	**Model II** Stock Return **Estimated Coefficient**	**(SE)**
Intercept				-	-	-	-
Changes in brand perception			+	-	-	-.303	(.389)
CSR characteristics							
Media presence		[metric]	+	.006***	(.002)	.003	(.005)
CSR type I	Short-term activity (*base*)			-	-	-	-
	Long-term activity	[dummy]	+	.003	(.003)	-	-
CSR type II	Employees (*base*)			-	-	-	-
	Environmental	[dummy]	+ / -	.003	(.008)	-	-
	Consumers	[dummy]	+ / -	-.003	(.010)	-	-
	Society	[dummy]	+ / -	.005	(.008)	-	-
CSR type III	Reactive activity (*base*)			-	-	-	-
	Proactive activity	[dummy]	+	.015**	(.007)	-	-
Region of CSR activity (*Control variable*)	No specific region mentioned (*base*)			-	-	-	-
	National country	[dummy]		.013***	(.005)	-	-
	Foreign industrialized country	[dummy]		.002	(.008)	-	-
	Foreign developing country	[dummy]		.018***	(.006)	-	-
Brand/Firm characteristics							
Prior brand reputation		[metric]	-	-.001*	($.3x10^{-3}$)	-	-
Product type (*Control variable*)	Services (base)					-	-
	Durables	[dummy]		-	-	-	-
	Retailer	[dummy]		-	-	-	-
	Non-durables	[dummy]		-	-	-	-
Market value of equity (*control variable*)		[metric]		-	-	-	-
Financial leverage (*control variable*)		[metric]		-	-	-	-
Operating margins (*control variable*)		[metric]		-	-	-	-
Model I: N(events):183, N (brands): 77 Model II: N(events): 36, N (companies): 16		Adj. R^2		.089		.713	

Notes: *$p < .10$, ** $p < .05$, *** $p < .01$ (two-sided); OLS (t-test); standard errors in parentheses. Most of the analyzed brands are not traded on stock markets. Thus, further finance-related control variables are not included in the consumer analysis; Stock return model estimated without CSR-specific control variables as prior estimations suggest that they have no impact.

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EIDESSTATTLICHE ERKLÄRUNG

nach § 6 der Promotionsordnung vom 16. Januar 2008

"Hiermit erkläre ich an Eides statt, dass ich die vorgelegte Arbeit ohne Hilfe Dritter und ohne Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe. Die aus anderen Quellen direkt oder indirekt übernommenen Aussagen, Daten und Konzepte sind unter Angabe der Quelle gekennzeichnet. Bei der Auswahl und Auswertung folgenden Materials haben mir die nachstehend aufgeführten Personen in der jeweils beschriebenen Weise entgeltlich/ unentgeltlich geholfen:

Weitere Personen – neben den in der Einleitung der Arbeit aufgeführten Koautorinnen und Koautoren - waren an der inhaltlich-materiellen Erstellung der vorliegenden Arbeit nicht beteiligt. Insbesondere habe ich hierfür nicht die entgeltliche Hilfe von Vermittlungs- bzw. Beratungsdiensten in Anspruch genommen. Niemand hat von mir unmittelbar oder mittelbar geldwerte Leistungen für Arbeiten erhalten, die im Zusammenhang mit dem Inhalt der vorgelegten Dissertation stehen. Die Arbeit wurde bisher weder im In- noch im Ausland in gleicher oder ähnlicher Form einer anderen Prüfungsbehörde vorgelegt. Ich versichere, dass ich nach bestem Wissen die reine Wahrheit gesagt und nichts verschwiegen habe."

Köln, den 27. August 2018

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10.2011 – 09.2013	**University of Cologne, Germany** Business Administration with major in Marketing (Master of Science); Final Grade: A (Rank #1 in peer group)
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Work experience:

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Volunteering activities:

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Languages and computer literacy:

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Awards and Scholarships:

Junior Teaching Award 2017
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On-going Research Projects:

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May 24, 2017. "When Do Journalists Report Negative News About a Brand? A Study of Corporate Social Irresponsibility Events Across Six Countries," *EMAC Conference*, Groningen.

February 26, 2018. "When Do Journalists Report Negative News About a Brand? A Study of Corporate Social Irresponsibility Events Across Six Countries," *Media Bias Workshop*, Cologne.

May 22, 2017. "When Do Journalists Report Negative News about a Brand? A Study of Corporate Social Irresponsibility Events across Six Countries," *EMAC Doctoral Colloquium*, Groningen.

Presentations at academic conferences (on-going):

September 26, 2016. "When Do Journalists Report Negative News about a Brand? A Study of Corporate Social Irresponsibility Events across Six Countries," *Annual Symposium on Quantitative Marketing*, Tübingen.

April 15, 2016. "The Impact of CSR News on Customer Brand Perception and Stock Return," *Conference on the Impact of Corporate Social Responsibility*, Winston-Salem NC.

June 16, 2016. "When Do Journalists Report Negative News About a Brand? An Investigation across six countries," *38th ISMS Marketing Science Conference*, Shanghai.

May 2, 2015. "Unethical Corporate Behaviour and Customer Brand Perception – A Cross-cultural Study," *Inequality, Trust and Ethics Conference*, London.

Presentation at research seminar series:

August 31, 2017. "When Do Journalists Report Negative News about a Brand? A Study of Corporate Social Irresponsibility Events Across Six Countries," *Auckland University of Technology*, Auckland.

August 16, 2017. "When Do Journalists Report Negative News About a Brand? A Study of Corporate Social Irresponsibility Events Across Six Countries," *University of Auckland*, Auckland.

August 23, 2017. "When Do Journalists Report Negative News about a Brand? A Study of Corporate Social Irresponsibility Events Across Six Countries," *Massey University*, Auckland.

October 1, 2015. "Bias in and Diffusion of Brand Crises in Public Media," *Research Seminar Series*, Boppard.

Practitioner presentations:

November, 2016. "Product Placement: Eine Omni-Channel Marketingstrategie," [Product Placement: An omni-channel marketing strategy] *Digital Marketing Congress*, Cologne.

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May 2014. „Eine empirische Studie zu ethisch bedingten Markenkrisen," [An empirical study of ethic related brand crisis], *Kongress der deutschen Marktforschung*, Berlin.

Publications in business media and interviews:

November, 2014. „Welche Kommunikationskrisen wirklich gefährlich sind und welche nicht," [An empirical study of ethic related brand crisis], *Online Blog Faktenkontor Mediengau*, with Max Backhaus (Obi next).

January 2013. „Ein Einblick in das Projektmanagement," [Insights into managing projects], *Campushunter* (Interview).

October, 2014. „Eine empirische Studie zu ethisch bedingten Markenkrisen," [An empirical study of ethic-related brand crisis], *BVM inbrief*, October 2014.

October 2012. „Kreatives exklusiv in Köln – die Cannes Rolle 2012," [Creative advertisement spots in Cologne – Cannes role 2012], *Kölner Wochenspiegel* (Interview).

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