



Effect of Perceived Crisis Response on Consumers' Behavioral Intentions During a Company Scandal – An Intercultural Perspective



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ABSTRACT

In the context of a multi-national company scandal, namely Volkswagen's Dieselgate, we examine the effect of customers' perception of organizational crisis response on their revenge and avoidance intentions in different cultural settings. Using data collected in the US and in Germany, we are able to show that the perception of appropriate crisis response reduces customers' revenge as well as avoidance intentions. However, due to the domestic bias of German respondents, the mechanism linking perception of the organization's crisis response to the respective outcomes differs between Germany and the US. Our results demonstrate for the first time that domestic bias is not always associated with being an amplifier of positive factors; rather, in the context of an organizational scandal, it dampens the effects of organizational crisis response.

1. Introduction

Over the past decades, a number of serious organizational crises and scandals have attracted worldwide attention, the most recent being the case of Volkswagen's Dieselgate. In September 2015, Volkswagen publicly admitted manipulating the engine and admission control software of > 500,000 diesel vehicles. Dieselgate is one of the most far-reaching organizational crises that quickly spread worldwide (Blackwelder et al., 2016). Current estimates consider some 11 million Volkswagen Group vehicles to be involved (Ewing, 2015).

The admission of fraud by Volkswagen was preceded by investigations of the International Council on Clean Transportation (ICCT) in early 2014 in an effort to prove that diesel engines could, in fact, meet the strict emission standards required by US legislation. With the help of researchers from the West Virginia University (WVU) Center for Alternative Fuels, Engines and Emissions, newly developed road tests were conducted to measure emissions under “real driving conditions”. Whereas conventional laboratory tests conducted by the California Air Resources Board (CARB) were passed, results of the road test conducted by ICCT/WVU exceeded US emission limits for nitrogen oxides by 9 to 38 times. These results were surprising to the testers and eventually uncovered one of the biggest fraud cases in automobile history. In a first reaction to the test results, VW denied any wrongdoing claiming that a software problem had caused the results. However, a voluntary recall of 500,000 vehicles in the US for a software update did not change the test results. Only one and a half years after the first discovery did VW finally admit to manipulating diesel cars to detect standard emission tests in order to pass them, knowing that these standards could never be reached under real driving

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conditions (Blackwelder et al., 2016; Gates et al., 2017).

Volkswagen is not the only firm involved in organizational scandals or crises; examples of high profile crises include organizations such as Toyota, BP, and Merck which have led to considerable financial damage and loss of reputation for these companies (Craig, 2011; Freedenthal, 2010; Heineman Jr, 2014; Marx, 2004; Tong et al., 2009; Wilhelm and Camuffo, 2016). In the case of Toyota's massive recall crisis in 2009/10, the company had to admit to malfunctioning parts. This admission of fault took even longer than that of VW, but was caused by poor quality management and reporting rather than intentional fraud (Heineman Jr, 2014; Wilhelm and Camuffo, 2016). Likewise BP had to deal with a blowout on the oil drilling rig Deepwater Horizon, which created the worst oil spill in the history of the US. Again cost pressure and poor control of subcontractors led to the disaster. However, deep water oil drilling is known to be risky and BP had received an official permit from the US authorities (Craig, 2011). One could argue that the worst part of the crisis was not the accident itself, but the inability to stop the oil from leaking from two underwater holes for almost three months. Not even the US government was prepared for such an accident (Freedenthal, 2010). The crisis of Merck comes closest to the current VW scandal with regard to questionable ethical behavior. In September 2004, Merck withdrew Vioxx, a medication for arthritis and other kinds of pain in adults, from the market. As early as the year 2000, Merck had been made aware of potential side effects of its drug (e.g. increased risk of heart attacks and strokes). Despite clear evidence of Vioxx's side effects, Merck kept the drug on the market for another four years during which time it became one of their best selling products (Tong et al., 2009). Even though Merck could be accused of unethical and harmful behavior, it was never forced to act by the US Food and Drug Administration. When Merck finally decided to take Vioxx off the market it was a voluntary withdrawal (Marx, 2004).

It can be argued that the extent of Volkswagen's intentional fraudulent behavior positions the VW emission scandal as a special case of a crisis initiated by a company making it a suitable case for this research.

During a crisis, companies are often faced with decisions in terms of how and what to communicate to their stakeholders (Laufer, 2015). In a recent literature review, Coombs (2014) identifies factors that influence the selection of organizational crisis response and its effect on crisis outcomes. However, much of the existing research on the effects of crisis management focuses on the socio-cognitive process underlying the stakeholders' perception and evaluation of the organization (Bundy and Pfarrer, 2015). Much less attention is paid to the question of how organizational crisis response, especially crisis communication, affects stakeholders' behavioral intentions, although the effects of a crisis on relational outcomes are of great importance (Kahn et al., 2013).

As high profile companies such as Volkswagen operate on a worldwide basis, it is fundamental to consider how organizational crisis response is received in different cultural regions. As of now, research has not yet focused sufficiently on investigating the effects of an organization's crisis response in an international context. In his extensive literature review on crisis communication, Schwarz (2015, p. 7) states that 'despite the importance of international dimensions of strategic organizational communication, scholars have only recently begun to explore international or cross-cultural dimensions of crisis communication'. This is remarkable since the theoretical foundations of crisis communication, i.e., communication processes and affected values and norms, are recognized to be highly culture sensitive (Schwarz, 2015). Additionally, it has been argued that research in this field is very much focused on the US perspective (Garcia, 2011) and that evidence from other western and non-western countries is limited (Claeys and Schwarz, 2016). In terms of methodology, quantitative studies with an explicit cross-cultural design are very rare (Claeys and Schwarz, 2016). As such, the question as to how reactions towards organizational crisis response differ from one country to another remains widely unresolved.

In this research, we aim to uncover the effects of perceived crisis response. We are particularly interested in the individual's perception of the appropriateness of the organization's crisis response and the effect on the individual's behavioral intentions. We, thus, seek to advance research on crisis communication and, more specifically, aim to illustrate a company's appropriate crisis response during a scandal (i.e., sending accommodative signals), and how these affect consumers' behavioral intentions. As indicated by Kumar and Pansari (2016), consumers' behavior is influenced by firms' actions towards the consumers. As such, it is extremely important for organizations to know how consumers react to organizations' crisis response.

We use the commitment-trust-theory (Morgan and Hunt, 1994) and link organizational crisis response to consumers' behavioral intentions and argue that the effect of this link will be influenced by the consumers' home country and culture. To support our argumentation, we consider the context of the recent Volkswagen scandal and use individual consumer data collected in the US (the country in which the Volkswagen scandal was originally discovered) and Germany (the home country of Volkswagen).

This paper makes several contributions to international management literature as well as management practice. First, our results extend existing research on crisis response. We show that the mechanism that translates perceived organizational crisis response into consumers' behavioral intentions is subject to a domestic bias. Second, we show that in the context of a crisis, domestic bias does not serve as an amplifier of positive aspects such as beneficial crisis management. This result extends existing cross-cultural research as it provides evidence that domestic bias is not always favorable. From a managerial perspective, our research provides guidance on how managers should set up appropriate and thus effective crisis responses during a scandal and which additional relational aspects (i.e., trust) need to be nurtured in different countries during a crisis.

2. Crisis response during a scandal

An organizational crisis is an unexpected and harmful event characterized by a high degree of initial ambiguity regarding the cause and the resolution, which affects organizational operations and results in negative perceptions of the organization giving rise to the crisis (Bundy and Pfarrer, 2015; Coombs, 2007; Pearson and Clair, 1998). According to Marcus and Goodman (1991), not all crises are equal, but differ on at least two important accounts: 1) effect on possible victims and 2) degree of deniability of the cause of the crisis. As such, they consider a crisis to be either an accident; a product safety or health incident; or a scandal. Contrary to accidents, a scandal (such as Volkswagen's emission scandal) is not a discrete event, the origin is rather obscure, it has no immediate

victims, and a company can hardly deny responsibility for the cause of the scandal (Marcus and Goodman, 1991). In the case of Volkswagen, one might argue, there are, in fact, immediate victims represented by the owners of manipulated cars. However, the group of victims (e.g. honest competitors or the betrayed public) is more diffuse than, for example, in the case of an accident. During a scandal, people's sense of fair play is frequently violated; in contrast, physical damage is less likely to occur (Marcus and Goodman, 1991). Applying Coombs' typology of crises, scandals represent transgressions, which have internal and intentional causes (Coombs, 1995). Moreover, Kepplinger et al. (2012) point out conditions that drive the evolution of scandals, namely the violation of social norms or harmful behavior by public figures or institutions, which are publicly accused. Moreover, the accusations are widely covered by relevant media leading to commonly shared opinions and feelings of anger. In the case of VW, these factors are clearly present in the emission scandal. A corporate scandal affects all stakeholders of the organization (Freeman, 1984) and can have major implications on the organizations' reputation and image.

Crisis management relates to a company's efforts to avert crises before they occur, as well as effective management of crises when they occur (Pearson and Clair, 1998). Effective crisis management after a crisis has occurred relates to '(...) individual and organizational readjustments of basic assumptions, as well as behavioral and emotional responses aimed at recovery and readjustment' (Pearson and Clair, 1998, p. 66). Organizational crisis response can be described as coordinated communicative actions that aim at influencing the stakeholders' perception of the crisis as well as the organization (Barton, 2001; Bundy and Pfarrer, 2015; Coombs, 2007). These responses range on a continuum from the organization taking no responsibility for the crisis to an organization taking a high degree of responsibility for the crisis (Coombs, 2007; Coombs and Holladay, 2004; Elsbach, 2003; Marcus and Goodman, 1991). Crisis response entailing a high degree of responsibility can be labeled as using accommodative signals; responses communicating a rather low degree of responsibility can be labeled as using defensive signals (Marcus and Goodman, 1991). Benson (1988) proposed that an appropriate crisis response must be selected depending on the type of the crisis. A study by Marcus and Goodman (1991) analyzed the effect of differing crisis management responses after different types of crises. They found that after a scandal, organizations should communicate accommodative signals in order to serve the interests of all the stakeholders involved. Accommodative signals relate to the organizations' efforts to apologize, admit the existence of the problem and attempt to implement organizational and managerial changes in order to prevent the scandal from reoccurring (Marcus and Goodman, 1991).

We are interested in the public's perception of the organization's crisis response during a scandal. As such, we consider perceived crisis response as the focal construct and define it as a person's perception of the organization sending appropriate accommodative signals, i.e. perception of the company apologizing, admitting and taking responsibility appropriately for the scandal and attempting to take action in order to resolve it.

3. Differences between German and US customers

3.1. Domestic bias

When investigating the perception of the VW crisis, the country-of-origin effect needs to be considered (see for example Balabanis and Diamantopoulos, 2004; Bilkey and Nes, 1982; Siamagka and Balabanis, 2015; Verlegh and Steenkamp, 1999). More specifically, in the given context a domestic or home bias is likely to exist in the form of more positive brand-related perceptions, attitudes and behaviors on the side of German consumers compared to non-German consumers. The prevailing concept generally used to explain the domestic bias is consumer ethnocentrism (CET) which was established and defined by Shimp and Sharma (1987, p. 280) as 'the beliefs held by [...] consumers about the appropriateness, indeed morality, of purchasing foreign-made products'. Thus, CET is a normative concept which represents the moral obligation of consumers to 'buy local' in order to protect and promote the domestic economy. CET also involves a cognitive evaluation bias that leads to the systematic preference for domestic goods because consumers do actually believe that those goods are superior to non-domestic alternatives (Sharma et al., 1995; Shimp and Sharma, 1987; Verlegh and Steenkamp, 1999). Subsequently, the concept has been broadened to encompass not only normative beliefs and biased cognitions as mentioned above, but also affective factors (e.g. symbolic and emotional connotations) and more differentiated normative (e.g. ethnocentric prosociality and insecurity) and behavioral aspects (e.g. ethnocentric habituation, WoM) (Sharma, 2015; Siamagka and Balabanis, 2015).

The aspects discussed can easily be transferred to the case of VW in Germany. VW is a major employer in Germany and, as the biggest domestic car company, it is linked to the economic prosperity of Germany. Due to the company scandal, fears have arisen of job losses and even of an economic downturn in those regions where VW operates. Therefore, the normative dimension of the domestic bias is clearly given. The same also holds true for the (biased) evaluation of the VW brands and cars. In car-loving Germany, domestic brands enjoy an outstanding reputation and account for about two thirds of an aggregated market share (Graf and Nicolaysen, 2015). Last but not least, VW represents a strong German brand with a rich tradition and can be viewed as a local icon (Steenkamp et al., 2003) and an important symbol of German culture. German consumers have strong affective bonds with the company and its brands since they relate to their identity and, at least for some consumers, even to autobiographical memories (Verlegh and Steenkamp, 1999). Therefore, we assume the existence of a significant domestic bias that should influence the strength of the relationships in our model (see Hypotheses 6 to 8).

3.2. Cultural differences

Culture relates to the 'collective programming of the mind which distinguishes one group from another' (Hofstede, 1980, p. 25). Hofstede (2001) distinguishes between five cultural dimensions: power distance, uncertainty avoidance, short term vs. long term

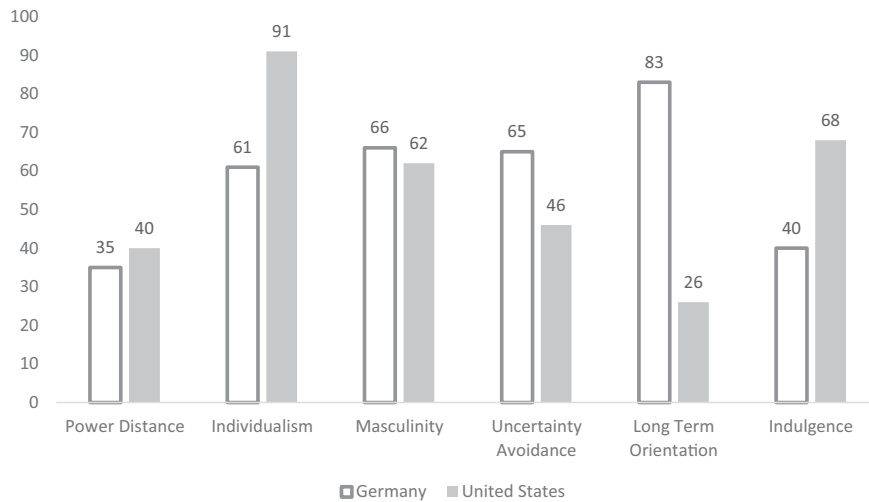


Fig. 1. Cultural dimensions Germany & United States (Hofstede, 2017).

orientation, masculinity vs. femininity, and individualism vs. collectivism.

The German and the US culture differ substantially on these cultural dimensions (see Fig. 1). While US Americans exhibit a significantly higher level of individualism (US: 91; GER: 67) and indulgence (US: 68; GER: 40), Germans score higher on long-term orientation (US: 26; GER: 83) and uncertainty avoidance (US: 46; GER: 65) (Hofstede, 2017).¹ Thus, the US culture is characterized as relatively risk- and pleasure-seeking as well as independent and ego-centered, in other words highlighting individual goals. At the same time, US Americans value traditions and norms and may be suspicious of societal change which is indicated by the low score for long-term orientation (Hofstede, 2001). On the contrary, as outlined by Hofstede (2001), countries which score high on long-term orientation, such as Germany, embrace societal change and reforms as a way to prepare for the future. Cultural differences between Germans and US Americans are also inherent in the legal systems. In the US, the Common Law system is practiced and thus, there is a stronger focus on morality and ‘just’ punishment. In contrast, in Germany, the Civil Law system is practiced and existing laws are applied to a proven (mis-)behavior (Dedek, 2010; Karrer, 2008; Kennedy, 1997). This is also reflected by the fact that the concept of punitive damages practiced in the US is non-existent in Germany (Rouhette, 2007). The differences in the legal systems may also cause US consumers to be more active in seeking their (just) rights compared with their German counterparts.

4. Conceptual framework and hypotheses development

The conceptual model guiding this research is depicted in Fig. 2. It outlines how the perception of the appropriateness of an organization's crisis response affects the public's revenge as well as avoidance intentions. In the context of an organizational scandal, revenge and avoidance intentions are relevant constructs, as they are indicators of people's grudges or lack of forgiveness towards an organization (Aquino et al., 2001; Grégoire et al., 2009; Wade, 1989), two likely outcomes of an organizational scandal. The model proposes trust to serve as a mediator between perceived appropriateness of crisis response and the public's revenge and avoidance intentions. Further, we suggest that the respondents' country of origin (Germany or US) moderates the proposed relationships.

The development of the proposed model is based on the commitment-trust-theory (Morgan and Hunt, 1994). The commitment-trust-theory considers trust to be a mediator between an organization's communication and relational outcomes, such as relational conflict or intention to leave the relationship (Morgan and Hunt, 1994). Crisis response is considered as a form of organizational communication as its signals ideally provide meaningful and timely information between the organization and the public. As relational outcomes, we consider avoidance intentions as a more general assessment of current customers' intentions to leave the relationship and this also applies to potential customers, while revenge intentions are seen as a way of restoring the balance within a relationship after service failure (Grégoire and Fisher, 2006).

Based on the commitment-trust-theory, we will subsequently argue that the more consumers perceive the crisis response as appropriate, the less likely they are to have avoidance or revenge intentions, because of increased trust towards the organization.

4.1. Effects of perceived crisis response

4.1.1. Effect on revenge intentions

In our study, revenge intentions relate to a person's desire to see harm and punishment come to the organization causing the scandal (Aquino et al., 2001; Grégoire et al., 2009; McCullough et al., 1998). Previous research shows that, in general, people tend to

¹ The scale runs from 0 (low score) to 100 (high score) with 50 as a midlevel.

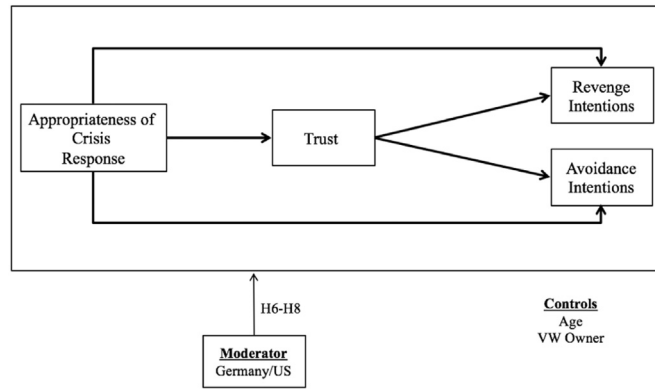


Fig. 2. Conceptual model.

seek revenge once blame for a wrongdoing can be clearly assigned (e.g. Aquino et al., 2001; Bradfield and Aquino, 1999). As illustrated in chapter 2, crisis response during a scandal should entail taking responsibility for the scandal; as a consequence, blame can be fully assigned.

However, we suggest that an organization's crisis response will lessen an individual's revenge intentions. Accommodative crisis response provides a valuable strategy for organizations to influence the public's first impression of the crisis and the organization (Bundy and Pfarrer, 2015; Coombs, 2007). Accommodative signals enable firms to provide explanations for perceived actions (Marcus and Goodman, 1991) and offset negative impressions that occurred as a result of the crisis, thus reducing negative affect (Coombs, 2007). Extant research shows that negative affect is a major driver of individuals' revenge intentions (Crossley, 2008; Grégoire et al., 2010). Therefore, we propose:

Hypothesis 1. Increased perception among the consumers that the company has engaged in appropriate crisis response will result in lower revenge intentions.

4.1.2. Effect on avoidance intentions

Avoidance intentions refer to a person's desire to avoid contact and interactions with the firm causing the scandal (Grégoire et al., 2009; McCullough et al., 1998). In their analysis of relationships between manufacturers and their intermediaries in the distribution channel, Anderson and Weitz (1989) argue that intensive communication leads to better informed distribution channel partners who are more willing to keep the relationship alive. We build on their argumentation and postulate that perceived crisis response (i.e., perception of appropriate communicative signals) reduces avoidance intentions.

By means of accommodative signals during a crisis, firms can conciliate (Xie and Peng, 2009) customers and convince them that the relationship is worth upholding (Walster et al., 1973). Stated formally:

Hypothesis 2. Increased perception among the consumers that the company has engaged in appropriate crisis response will result in lower avoidance intentions.

4.1.3. Effect on trust

In general, trust can be conceptualized in conative or behavioral terms or, alternatively, as a cognitive or evaluative concept (Sirdeshmukh et al., 2002). Whereas the former definition focuses on the behavioral component of trust (e.g., Moorman et al., 1992), the latter refers to perceptions of or beliefs about the exchange partner's trustworthiness. As Morgan and Hunt (1994) argue, the behavioral component is implicitly given in the evaluative conceptualization of trust and is, therefore, unnecessary in its definition: 'If one is confident, then one would be willing; if one is not willing, then one is not genuinely confident' (Morgan and Hunt, 1994, 23f). In line with this view, we define trust as a person's expectations regarding an organization's dependability, integrity and reliability (Morgan and Hunt, 1994; Sirdeshmukh et al., 2002). Organizations can carry out a number of actions in order to influence stakeholders' perceptions of the organization (e.g. trust) (Elsbach, 2003). Among others, these actions can be verbal as well as symbolic (Elsbach, 2003). Crisis response includes communicative signals that transmit an organization's verbal as well as symbolic actions to counter the crisis (e.g. offering an apology, taking actions to mitigate the source of the crisis, etc.).

We propose that perceived crisis response enhances trust in the organization. Previous research suggests that communication fosters trust as it reduces inter-relational dispute, enhances knowledge of organizational intentions and promotes the alignment of perceptions and expectations (Etgar, 1979; Morgan and Hunt, 1994). We contend that perceived crisis response increases trust in the organization as it provides individuals with information on the company's causal role in the crisis as well as its regret and mitigation of the wrongdoing, thus reducing negative perceptions (Bottom et al., 2002; Coombs and Holladay, 2002). Furthermore, organizational signals, such as accommodative signals during a crisis, can convey organizational attributes indicating the organization's trustworthiness (Connelly et al., 2011; Homburg et al., 2013) Thus:

Hypothesis 3. Increased perception among the consumers that the company has engaged in appropriate crisis response will result in greater trust in the company.

4.2. Effects of trust

Trust is a widely studied concept in marketing (e.g. Anderson and Narus, 1990; Moorman et al., 1993; Morgan and Hunt, 1994) as well as in strategy and organizational research (e.g. Ring and van de Ven, 1992; Zaheer and Venkatraman, 1995).

Trust is mainly regarded as a cornerstone of customer - company relationships (Berry and Parasuraman, 1991; Sherman, 1992; Spekman, 1988). Research indicates that trusting customers are more deeply involved in a relationship with an organization (Aurier and N'Goala 2010) and are more likely to act positively towards the trusted company (Anderson and Weitz, 1992). Empirical research has shown that trust is central in influencing a customer's intention to continue the relationship with an organization (Anderson and Weitz, 1992; Morgan and Hunt, 1994). Grégoire and Fisher (2006) argue that trusting customers may feel reluctant to cause harm to the organization. Building on these notions, we argue that trust reduces revenge as well as avoidance intentions. Stated formally:

Hypothesis 4. Greater trust in the company will decrease consumers' revenge intentions.

Hypothesis 5. Greater trust in the company will decrease consumers' avoidance intentions.

4.3. Moderating effect of domestic bias

Domestic bias represents an amplifier of positive factors and, at the same time, a protective shield from negative factors. That means that favorable brand attributes are overemphasized in the evaluation process, whereas unfavorable aspects are overlooked (see for example Sharma et al., 1995). Therefore, we assume that the (positive) perception of the appropriateness of the company's crisis response will influence consumers' trust more positively in Germany than in the US. German consumers are likely to be more willing to believe in the explanations and assurances offered by the company compared to their US counterpart. Thus, the trust of local consumers may be regained more easily in the domestic market through effective crisis response. Additionally, the relatively higher uncertainty avoidance in Germany favors the impact of perceived crisis response. In uncertainty avoidant countries, high priority is given to well-structured plans and actions as well as to details of problems and expertise in order to reduce uncertainty and anxiety (Hofstede, 2011). Consequently, a systematic crisis response should be more effective in (re)building trust in Germany than in the US leading to the following hypotheses:

Hypothesis 6. The effect of consumers' perception of appropriate crisis response of the company on trust will be stronger for German than for US respondents.

Moreover, we postulate that consumers' perception of appropriate crisis response will have a stronger effect on German consumers' revenge and avoidance intentions than on US consumers'. As already argued, the domestic bias tends to lead to a greater responsiveness to recovery attempts since domestic consumers are in general motivated to preserve the competitiveness of their local economy (Shimp and Sharma, 1987; Sharma, 2015). Therefore, a favorable perception of the crisis response will probably fall on fertile ground in the German market leading to a more significant decrease in avoidance and revenge intentions. In addition, in the service recovery context, it has been shown that 'strong-relationship customers are more amenable to any level of recovery attempt' (Grégoire et al., 2009, p. 18). Assuming that the average domestic (i.e., German) consumer has a stronger relationship with the VW brand, we can transfer that finding to our research, as stated in the following hypothesis:

Hypothesis 7. Increased perception among consumers that the company engaged in appropriate crisis response will decrease consumers' a) revenge intentions, and b) avoidance intentions. These effects will be stronger among German than US American consumers.

In a similar vein, we hypothesize that trust lessens customer avoidance and revenge intentions to a larger extent in Germany than in the US. In Germany, a trusting attitude towards the German organization (i.e., VW) to solve the crisis in a positive way should largely soften personal avoidance and revenge intentions. Certainly, the majority of German consumers considers the 'big picture' and would avoid personal actions to worsen the situation for the organization – at least if a certain level of trust is given. However, in the US, the situation is likely to be different. The 'suffering' of the organization will not impact on the US economy – it will rather strengthen domestic car brands. So US consumers may not feel any moral obligations to waive punitive coping actions, even if personal trust has been restored. We expect, that the effect might even be reversed, i.e., US consumers may feel that the organization should be punished because of its obvious misconduct despite the company's apologies and crisis handling efforts. In line with this, the stronger individualistic orientation of US consumers combined with a (legal) culture that emphasizes just punishment and individual merit (e.g. Uhlmann et al., 2009) should weaken the effect of (regained) trust on avoidance and revenge intentions. Thus:

Hypothesis 8. Greater trust in the company will decrease consumers' a) revenge intentions, and b) avoidance intentions. These effects will be stronger among German than US American consumers.

Table 1
Demographic profile of respondents.

	US		Germany	
	n = 262	%	n = 242	%
Gender				
Male	129	49.2	126	52.1
Female	125	47.7	111	45.9
No information	8	3.1	5	2.1
Age				
Mean	38		34	
Median	34		27	
Range	16–82		17–76	
Income ^a				
Below € 60,000	156	59.5	185	76.4
Above € 60,000	100	38.2	50	20.7
No information	6	2.3	7	2.9

^a In the questionnaire distributed in the US we converted the values to US\$ using the current exchange rate (October 2015: US-\$ 1 = € 0.89)

5. Research design and methodology

5.1. Sample and data collection

Data in this study was collected by means of a large-scale online survey among car drivers in the US and Germany. Data collection started in October 2015, almost immediately after the occurrence of the scandal as well as Volkswagen's initial responses to it. As no accessible sampling frame for car drivers in the US and Germany was available, we utilized the snowballing technique for sampling (as used for example by Prentice and Handsjuk, 2016). More specifically, we solicited primary participants contacted for the research for the contact information of people they know or the direct distribution of the online survey to people they know that would be potentially suitable to the given research (Browne, 2005). In order to ensure the suitability of the individual participants, we utilized screening questions asking for the participants' age, their possession of a driver's license and whether they regularly drove a car. Individuals that did not fit our target population (i.e., individuals with a driver's license that regularly drove a car) were excluded from further analysis. In total, we received 504 usable questionnaires (262 respondents from the US; 242 respondents from Germany). We report demographic profiles of respondents in Table 1.

The questionnaire was developed in English. For ease of understanding, we translated the questionnaire into German. To ensure linguistic and conceptual equivalence (Brislin, 1980; Hui and Tirandis, 1985) we back-translated it into English before administering it in Germany.

5.2. Measures

We followed well-established procedures to develop this study's measurement instrument. Whenever possible, we used established measures of the constructs and, when necessary, adapted them to fit our context. All constructs were assessed through seven-point multi-item scales, unless otherwise indicated.

The *perceived appropriateness of crisis response* scale was developed following conventional guidelines for scale development (e.g. Gerbing and Anderson, 1988; Churchill, 1979). The development of the scale is based on the conceptualization of accommodative signals as used by Marcus and Goodman (1994). We focused solely on accommodative signals, as literature suggests they are most appropriate during a scandal (e.g. Marcus and Goodman, 1991). The generated list of items was subjected to content validity assessment. We invited five crisis management researchers and practitioners to help assess content validity. We provided the experts with a definition of the perceived appropriateness of crisis response construct and asked them to assess the fit of each item to this definition. We deleted items the experts deemed inappropriate and adapted item wording based on their feedback. The retained nine items represent a reasonable measure of the construct and relate to aspects such as the degree to which the company delivered a sincere apology, the degree to which the company released information about the scandal and the appropriateness of the company's handling of the scandal.

We measured *trust* using a four item semantic differential scale (Sirdeshmukh et al., 2002). The items used include assessments regarding the organization's dependability, competence, integrity and responsiveness. We assessed *individual's revenge* and *avoidance intentions* with scales adapted from Grégoire et al. (2009). Three items were used to measure revenge intentions, these included for example 'I hope actions are taken that cause inconvenience for Volkswagen' and 'I hope Volkswagen gets what it deserves'. Items to assess *avoidance intentions* included 'I will not purchase any products from Volkswagen', 'I do not want anything to do with Volkswagen', and 'I want to keep as much distance as possible between Volkswagen and myself'.

Detailed information about the measurement instrument can be found in Table 2.

We checked for age and Volkswagen ownership as these may relate to trust as well as to the behavioral intentions. Age was measured in years, while Volkswagen ownership was measured as a dichotomous variable coded as 1 for Volkswagen ownership and 0 otherwise.

Table 2
Means, standard deviations, and standardized loadings for the measurements.

Measurements ^a	Germany			US		
	Mean	Standard deviation	Standardized estimate	Mean	Standard deviation	Standardized estimate
Appropriateness of crisis response (German sample: $\alpha = 0.90$; CR = 0.93; AVE = 0.67) (US sample: $\alpha = 0.89$ CR = 0.92; AVE = 0.63)						
The time Volkswagen took to admit the emission manipulation was appropriate	3.59	1.68	0.66	3.56	1.40	0.63
Volkswagen released an appropriate amount of information regarding the emission manipulation	3.50	1.50	0.78	3.69	1.37	0.77
Volkswagen delivered an appropriate apology	3.82	1.70	0.90	3.93	1.42	0.88
Volkswagen delivered a sincere apology	3.85	1.59	0.86	3.79	0.149	0.88
Until now Volkswagen has handled the emission scandal appropriately	4.03	1.60	0.87	3.78	1.37	0.77
I believe that Volkswagen will be able to solve the problem causing the scandal.			Dropped			Dropped
Volkswagen's response to the emission scandal is defensive			Dropped			Dropped
The released information regarding the emission scandal is very transparent	3.54	1.39	0.60	3.91	1.28	0.63
Volkswagen takes full responsibility for the emission scandal			Dropped			Dropped
Trust ^b (German sample $\alpha = 0.92$; CR = 0.93; AVE = 0.66) (US sample: $\alpha = 0.94$; CR = 0.95; AVE = 0.73)						
very undependable – very dependable	4.90	1.47	0.79	4.20	1.79	0.93
Very incompetent – very competent	4.89	1.47	0.80	4.37	1.80	0.87
Of low integrity – of high integrity	4.19	1.59	0.89	3.57	1.93	0.83
Very unresponsive to consumers – very responsive to consumers	4.28	1.41	0.77	4.08	1.56	0.77
Very unreliable – very reliable	3.95	1.59	0.88	4.19	1.80	0.93
Avoidance intentions (German sample $\alpha = 0.96$; CR = 0.96; AVE = 0.88) (US sample: $\alpha = 0.94$; CR = 0.94; AVE = 0.85)						
I will not purchase any products from Volkswagen	2.48	1.82	0.94	4.14	2.04	0.92
I do not want anything to do with Volkswagen	2.49	1.75	0.95	3.91	1.95	0.90
I want to keep as much distance as possible between Volkswagen and myself	2.46	1.70	0.93	3.95	1.92	0.94
Revenge intentions (German sample $\alpha = 0.85$; CR = 0.85 AVE = 0.65) (US sample: $\alpha = 0.90$; CR = 0.90; AVE = 0.76)						
I hope Volkswagen is punished in some way	4.04	1.82	0.80	4.62	1.68	0.90
I hope actions are taken that cause inconvenience for Volkswagen	2.70	1.79	0.80	4.26	1.74	0.84
I hope Volkswagen gets what it deserves.	3.72	1.90	0.82	4.56	1.65	0.87

Note. All loadings are significant ($p < 0.01$). α = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted.

^a 7-Point Likert-type scales with 1 = strongly disagree and 7 = strongly agree being employed as anchors, unless otherwise indicated.

^b 7-Point Likert-type scales with anchors as indicated.

6. Results

6.1. Measurement validation

Prior to exploring our research hypothesis, we tested the assumption of cross-cultural measurement invariance, which is a necessary prerequisite for meaningful cross-cultural comparisons (see for example Schmitt and Kuljanin, 2008; Steenkamp and Baumgartner, 1998; Tsui et al., 2007).

To evaluate measurement invariance across the countries, we followed the procedure used by Kumar et al. (1995) and performed a series of analyses: a) an analysis of psychometric properties at the national level, b) a multi-group analysis; as well as c) an analysis of the aggregated data.

An analysis of psychometric properties at the national level examines whether the psychometric properties exhibit similar

Table 3
Latent construct means, standard deviations, and correlations.

Construct	Mean	SD	1	2	3	4
A. German sample						
1. Appropriateness of crisis response	3.74	1.29	0.82			
2. Trust	4.43	1.31	0.65	0.81		
3. Avoidance intentions	2.48	1.69	−0.49	−0.73	0.94	
4. Revenge intentions	3.47	1.61	−0.55	−0.72	0.70	0.81
B. US sample						
1. Appropriateness of crisis response	3.77	1.11	0.79			
2. Trust	4.08	1.59	0.53	0.85		
3. Avoidance intentions	4.00	1.85	−0.61	−0.73	0.87	
4. Revenge intentions	4.48	1.54	−0.59	−0.57	0.74	0.92

Note: Numbers below the diagonal represent construct correlations; numbers on the diagonal represent the square root of the variance extracted for each construct. All construct correlations are significant at $p < 0.001$.

patterns across the countries. More specifically, we ran a four-factor confirmatory factor analysis using AMOS 24 to assess the reliability and discriminant validity of the multi-item measures on a country-by-country basis. Overall, the confirmatory factor models of both countries show an acceptable fit of the data.² The comparative fit index (CFI) was higher than the recommended value of 0.90 (Bagozzi and Yi, 1988) and the root mean square error of approximation (RMSEA) was below the recommended level of 0.08 (Brown and Cudeck, 1993) for each country. In addition, hypothesized factor loadings were all statistically significant at the 0.05 level, and well above the recommended level of 0.50. Cronbach alpha values ranged from 0.85 to 0.96 and were, thus, all well above Nunally's (1978) recommended level of 0.70. The requirement of a composite reliability of at least 0.60 (Bagozzi and Yi, 1988) is met for every construct, as shown in Table 2. The average variance extracted was higher than the recommended level of 0.50 for each construct (Fornell and Larcker, 1981). Discriminant validity was analyzed applying the method suggested by Fornell and Larcker (1981). In support of discriminant validity, construct correlations did not, in any case, exceed the square roots of the average variances extracted of the individual constructs. Construct means, standard deviations, and correlations are reported in Table 3.

The psychometric properties of the two countries exhibit a similar pattern, indicating that the study's focal variables are alike across the countries.

A multi-group analysis was used to evaluate the pattern of parameter estimates across the countries (i.e. metric invariance across countries). We compared an unconstrained factor model in which the item-to-factor loadings are allowed to vary across the countries, with a constrained factor model in which the item-to-factor loadings are set equally across the countries (Steenkamp and Baumgartner, 1998). For the 4-factor model, the unconstrained model yielded an acceptable fit (χ^2 (226) = 495.68, $p < 0.001$, RMSEA = 0.049, CFI = 0.96, TLI = 0.96). The Chi-Square value of the fully constrained factor model was significantly different from the Chi-Square value of the unconstrained model, full metric invariance is, thus, not supported. Therefore, we tested for partial metric invariance.³ We first performed metric invariance analysis for each measure separately. Based on the results, we can conclude that all measures except trust exhibit metric invariance. For the full model, we, thus, allowed one loading of the trust construct to vary across the countries. The fit of this model was not significantly different from the unconstrained model (χ^2 (12) = 18.88 $p > 0.05$). Consequently, partial metric invariance is supported.

In a third step, we ran a confirmatory factor analysis using the aggregated data. The overall fit indices of the aggregated data model indicate an acceptable fit of the data (χ^2 (113) = 401.52, $p < 0.001$, RMSEA = 0.07, CFI = 0.96, TLI = 0.95).

Taken together, the analyses at the national, multi-group, and aggregated data level indicate a high-cross-country measurement equivalence; therefore, we are able to test our hypotheses (Triandis, 1982).

6.2. Common method bias

In order to reduce common method bias ex ante, we designed the study very carefully. We followed recommendations in literature (Podsakoff et al., 2003): we constructed the items and formulated the questions as unambiguously as possible; we separated the measure of predictor and criterion variable within the questionnaire and we assured respondents of anonymity.

In addition to the ex-ante considerations, we assessed the potential impact of common method variance ex-post using procedures as outlined by Podsakoff et al. (2003). We first employed Harman's single factor test (as used for example by Andersson and Bateman, 1997; Aulakh and Gencturk, 2000; Homburg et al., 2010; Homburg et al., 2011). If common method variance was an issue in the study, we would expect a single factor to emerge from the factor analysis or a single factor to account for the majority of variance of the predictor and criterion variables (Podsakoff and Organ, 1986; Podsakoff et al., 2003). We performed an exploratory factor

² German sample model fit: χ^2 (113) = 243.22, $p < 0.001$, RMSEA = 0.069, CFI = 0.96, TLI = 0.95.

US sample model fit: χ^2 (113) = 252.46, $p < 0.001$, RMSEA = 0.069, CFI = 0.96, TLI = 0.96.

³ Researchers (e.g. Byrne et al., 1989; Steenkamp and Baumgartner, 1998) argue that full metric invariance is not necessary for a meaningful comparison of regression estimates across groups.

analysis on all items and extracted four distinct factors with Eigenvalues > 1 . Although the results of this analysis do not preclude the possibility of common method variance, they do suggest that it is not a likely explanation for the reported findings. Additionally, as done by e.g. Mossholder et al. (1998), we examined the fit of a model in which all indicators loaded on one factor. This procedure provides an indication of whether a single factor accounts for all the covariance among the measures and enables an assessment to be made as to whether common method variance is an issue (Podsakoff et al., 2003). In that case, the confirmatory factor analysis should indicate that a single factor model fits the data. A one factor model yielded a very poor fit in the sample.⁴

Further, we re-estimated the measurement model and compared the model fit of our hypothesized measurement model with a model that included our hypothesized model plus an unmeasured latent common method factor (as depicted by Podsakoff et al., 2003). This approach is well-established in literature and has been used in several previous studies (e.g. Carlson and Kacmar, 2000; Faceteau et al., 1995).

The model including the common method factor fits the data better than the hypothesized model. While statistically significant, the gain in fit achieved is relatively small. Following the reasoning of Faceteau et al. (1995) and Carlson and Kacmar (2000), we acknowledge that the model benefits from including the common method factor.⁵ However, due to the small gain in the achieved fit, common method variance should not be a grave issue in our study.

Taken together, the results indicate that common method variance and, thus, common method bias are not of major concern.

6.3. Tests of hypothesized relationships

We employed a multi-group structural equation modeling (SEM), using AMOS 24 to test our hypotheses. Multiple-Group SEM, a multivariate simultaneous test of pairwise relationships across groups, reduces the probability of Type I error (Singh, 1995). Further, SEM analysis allows a rigorous test of mediation effects by providing evidence for the statistical significance of an indirect (mediated) effect (Little et al., 2007; Shrout and Bolger, 2002) and reduces the risk of unwittingly exaggerating the size or importance of a mediating effect (Little et al., 2007).

Before testing the hypothesized relationships, we assessed whether significant differences exist across all parameter estimates simultaneously between the German and the US sample. We followed the procedure as used by Badrinarayanan et al. (2012) and ran several models. First, we ran a model (MODEL 1) in which all the structural parameters were constrained so as to be equal across the two countries. Subsequently, we ran a model (MODEL 2) in which all the structural parameters were unconstrained. Once a significant difference across the groups on all parameter estimates simultaneously was established, we followed up by examining the difference of each parameter estimate individually (Singh, 1995).

MODEL 1 is nested in MODEL 2, as such the Chi-Square of MODEL 1 will be higher than that of MODEL 2. A significant Chi-Square difference indicates differences across all or some of the estimated parameters (Badrinarayanan et al., 2012). Each parameter is then constrained individually in order to assess which parameters differ between the German and US respondents.

As shown in Table 4, MODEL 2 exhibits a significant Chi-Square improvement ($\Delta\chi^2(\text{df}) = 34.67(11); p < 0.001$). Thus, significant differences in all or some of the parameter estimates exist between the German and the US sample.

We first estimated the parameter estimates across the two groups, using the pooled data. Results are shown in Table 5, column 2. Hypotheses 1 and 2 suggested a negative relationship between perceived appropriateness of crisis response and revenge respectively avoidance intentions. The results support H1 ($p < 0.001$) as well as H2 ($p < 0.001$). Hypothesis 3 suggested a positive relationship between perceived appropriateness of crisis response and trust, we also find support for this relationship ($p < 0.001$). The results indicate the existence of a negative relationship between trust and revenge intentions ($p < 0.001$) as well as trust and avoidance intentions ($p < 0.001$), thereby supporting H4 as well as H5. The results further indicate that VW ownership has a positive effect on trust ($p < 0.001$) and a negative effect on revenge intentions ($p < 0.05$) as well as avoidance intentions ($p < 0.001$). Furthermore, age significantly affects avoidance intentions ($p \leq 0.05$).

In order to test for significant differences in each parameter estimate between the two countries, we constrained the respective path so that it was equal across the countries and compared the Chi-Square value of these models with the Chi-Square value of the unconstrained model. The Chi-Square value differences across the two countries are reported in the last column of Table 5. Results of the unconstrained model for the US and the German sample are shown in Table 5, columns 3 and 4. Fig. 3 shows the standardized estimates for each country.

We did not find any significant differences across the two countries for the relationship between perceived appropriateness of crisis response and trust. As such, we reject H6 (German sample: standardized estimate = 0.61, $p < 0.001$ | US sample: standardized estimate = 0.55, $p < 0.001$).

However, we did find significant differences for all the other proposed relationships (H7a/b and H8a/b).

In Hypothesis 7, we proposed that the effect of perceived appropriateness of crisis response on revenge (H7a) as well as avoidance (H7b) intentions will be stronger in Germany than in the US. Although a significant difference was found, the results do not support H7a and H7b. We tested the moderating effect using our hypothesized model, as well as direct-effects-only model. Within our hypothesized model, we found that in the US sample, the direct effect of perceived appropriateness of crisis response on revenge intentions was significant (standardized estimate = -0.41 , $p < 0.001$), as was the effect on avoidance intentions (standardized estimate = -0.30 , $p < 0.001$). However, within the German sample, the effect of perceived appropriateness of crisis response on

⁴ Fit indices: $\chi^2(170) = 2983.09$; $p < 0.001$, RMSEA = 0.18, CFI = 0.64, TLI = 0.60

⁵ Fit indices: $\chi^2(96) = 268.37$, $p < 0.001$, RMSEA = 0.06, CFI = 0.97, TLI = 0.96

Table 4
Goodness-of-fit indices for Model 1 (fully constrained) and Model 2 (unconstrained).

Model	Specifications	Chi ² (df)	Chi ² /(df)	CFI	RMSEA
Model 1	Fully constrained	816.18(321)	2.54	0.93	0.055
Model 2	Unconstrained	781.51(310)	2.52	0.94	0.055

Table 5
Results of multi-group-analysis.

Effects	Model 1 Pooled data estimates (C.R.) ^b	Model 2 US estimates (C.R.) ^b	Model 2 German estimates (C.R.) ^b	Country difference Δ Chi ^{2a}
Direct effects				
H1: Appropriateness of crisis response → revenge intentions	− 0.24*** (− 4.77)	− 0.41*** (− 5.84)	− 0.12 (− 1.63)	H7a: 10.26***
H2: Appropriateness of crisis response → avoidance intentions	− 0.11** (− 2.624)	− 0.30*** (− 5.34)	− 0.00 (− 0.04)	H7b: 15.82***
H3: Appropriateness crisis response → trust	0.56*** (10.74)	0.55*** (8.30)	0.61*** (9.24)	H6: 3.75
H4: Trust → revenge intentions	− 0.50*** (− 9.71)	− 0.39*** (− 5.83)	− 0.65*** (8.01)	H8a: 13.83***
H5: Trust → avoidance intentions	− 0.64*** (− 13.92)	− 0.58*** (− 10.39)	− 0.73*** (− 9.94)	H8b: 6.17*
Controls				
Age → trust	− 0.03 (− 0.64)	0.01 (0.24)	− 0.03 (− 0.54)	
Age → revenge intentions	0.03 (0.76)	− 0.03 (− 0.59)	0.00 (0.09)	
Age → avoidance intentions	0.11*** (3.40)	0.02 (0.41)	0.11* (2.35)	
VW ownership → trust	0.16*** (4.01)	0.07 (1.29)	0.21*** (3.89)	
VW ownership → revenge intentions	− 0.07* (− 1.96)	− 0.01 (− 0.20)	0.01 (0.17)	
VW ownership → avoidance intentions	− 0.12*** (− 3.68)	− 0.02 (− 0.49)	− 0.07 (− 1.49)	

Note: Values are standardized estimates.

^a The Chi-Square difference is the value difference between the unconstrained model (MODEL 2) and a model in which the respective path was constrained to be equal across the countries.

^b C.R. is the critical ratio (*t*-value).

* *p* < 0.05.

** *p* < 0.01.

*** *p* < 0.001.

revenge intentions (standardized estimate = − 0.12, n.s.) respectively avoidance intentions (standardized estimate = 0.00, n.s.) was insignificant.⁶

To understand fully the effect of domestic bias on the relationship between perceived appropriateness of crisis response and revenge intentions as well as avoidance intentions, we also estimated a direct-effects-only model. Within this model, the effect of perceived appropriateness of crisis response on revenge intentions differs significantly between Germany and the US ($\Delta\chi^2(df) = 4.58(1), p < 0.05$) as does the effect of perceived appropriateness of crisis response on avoidance intentions ($\Delta\chi^2(df) = 16.25(1), p < 0.001$). However, contrary to our expectations, the effect of perceived appropriateness of crisis response on revenge intentions was stronger in the US than in Germany (US: standardized estimate = − 0.65, *p* < 0.001 | Germany: standardized estimate = − 0.53, *p* < 0.001). In the direct-effects-only model, the effect of perceived appropriateness of crisis response on avoidance intentions was also stronger in the US than in Germany (US: standardized estimate = − 0.64, *p* < 0.001 | Germany: standardized estimate = − 0.46, *p* < 0.001). Thus, although a significant difference exists, we must reject H7a and H7b as postulated.

As hypothesized in H8a, the effect of trust on revenge intentions was stronger in the German sample (standardized estimate = − 0.65, *p* < 0.001) than in the US sample (standardized estimate = − 0.39, *p* < 0.001). In support of H8b, the effect of trust on avoidance intentions was also stronger in the German sample (standardized estimate = − 0.73, *p* < 0.001) than in the US sample (standardized estimate = − 0.58, *p* < 0.001).

⁶ These results are also a first indication, that within the German sample, trust fully mediates the effect of perceived appropriateness of crisis response on revenge respectively avoidance intentions. While in the US sample trust only partially mediates the effect.

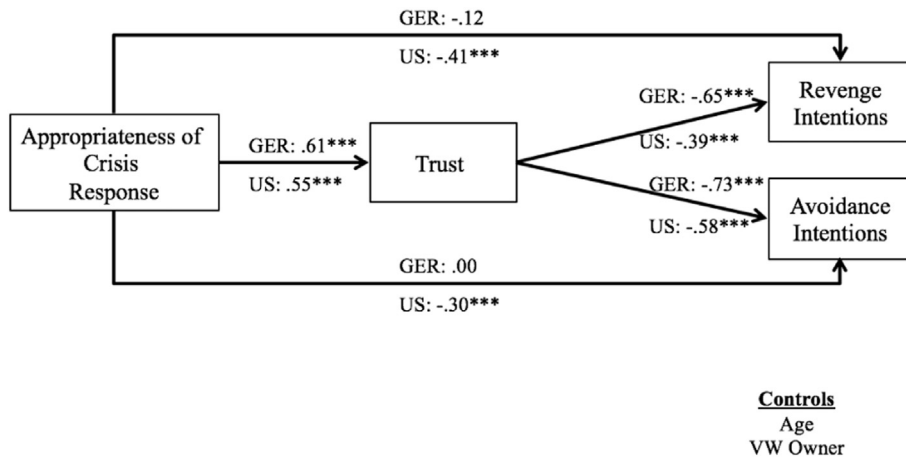


Fig. 3. Results^a.

^aPath estimates show standardized results.
 GER = German sample standardized estimates.
 US = US sample standardized estimates.
 We controlled for age and VW ownership.
 *** $p < 0.001$.

6.4. Post hoc mediation analysis

In order to test whether trust mediates the relationship between perceived appropriateness of crisis response and revenge respectively avoidance intentions, we tested the significance of the indirect effects (through trust) of perceived appropriateness of crisis response on revenge and avoidance intentions. According to Shrou and Bolger (2002), support for mediation is provided if the indirect path from X to M to Y (in this study: from perceived appropriateness of crisis response to trust to revenge intentions respectively avoidance intentions) is significant. One method, to determine the significance of the indirect effect is the use of bootstrapping⁷ (Little et al., 2007). In recent years, this procedure of testing mediation effects has advanced the traditional assessment of mediation as introduced by Baron and Kenny (1986) (Shrou and Bolger, 2002; Little et al., 2007).

We used 1000 bootstrapped samples to estimate the significance of the indirect effects for each country. In the US as well as in the German sample, the indirect path from perceived appropriateness of crisis response to revenge intentions was significant (US: standardized estimate = -0.21, standard error = 0.05, $p < 0.001$, bias corrected CI_{.95} {-0.32, -0.11}|Germany: standardized estimate = -0.39, standard error = 0.06, $p < 0.01$, bias corrected CI_{.95} {-0.52, -0.29}). The same also applied for the indirect path from perceived appropriateness of crisis response to avoidance intentions (US: standardized estimate = -0.32, standard error = 0.05, $p < 0.01$, bias corrected CI_{.95} {-0.42, -0.22}|Germany: standardized estimate = -0.44, standard error = 0.06, $p < 0.01$, bias corrected CI_{.95} {-0.57, -0.54}).

Taken together, we can conclude that within the German sample trust fully mediates the relationship between perceived appropriateness of crisis response and revenge intentions as well as avoidance intentions. Since within the US sample the indirect effect and additionally the direct effect of perceived appropriateness of crisis response on revenge intentions and on avoidance intentions is significant, we conclude that trust only partially mediates the relationship between perceived appropriateness of crisis response and revenge respectively avoidance intentions.

7. Discussion

The results give strong support for the developed structural model and provide evidence for the research aim to gain a better understanding of the effects of perceived appropriateness of crisis response on trust and consumers' subsequent behavioral intentions.

We found a strong, positive relationship within the sample between perceived appropriateness of crisis response and its effect on trust as well as revenge intentions and avoidance intentions, strongly supporting hypotheses 1, 2, and 3. Furthermore, greater trust in the company led to decreased intentions for revenge (Hypothesis 4) as well as to decreased intentions to avoid the company (Hypothesis 5).

Looking at country specific results, we found different influencing paths between respondents from Germany, the home country of VW, and those from the US. Among the German respondents, the effect of perceived appropriateness of crisis response on respondents' behavioral reactions (i.e., revenge and avoidance intentions) was fully mediated by trust. However, country bias does not seem to have an influence on the relationship between perceived appropriateness of crisis response and trust since the effect was

⁷ For a description of the bootstrapping method, see for example Bollen and Stine 1990, MacKinnon et al. 2004, Preacher and Hayes 2004, or Shrou and Bolger, 2002.

equally strong in both country samples ([Hypothesis 6](#)). In the US sample, the effect of perceived appropriateness of crisis response on behavioral intentions (i.e., revenge and avoidance intentions) was only partially mediated by trust. Hence, revenge and avoidance intentions were also directly influenced by US respondents' perception of the appropriateness of the company's crisis response. This direct effect was significantly stronger in the US sample compared to the German sample, contrary to our expectations (see [Hypothesis 7](#)).

We conclude that trust is a key expression of the domestic bias and can serve as a strong indicator for consumers' behavioral intentions towards the company such as avoiding the company or even supporting actions, which will punish the same. To German consumers VW is a well-known domestic brand associated closely to the home country and culture. This seems to allow for a more immediate and direct formation of trust as a result of the organization's crisis response. In contrast, the US respondents have a more distant relationship with the brand being one of many foreign car brands, making it more difficult for trust to be built through the organization's crisis response. This might have led to a more “unfiltered” direct effect (i.e., not mediated by trust) resulting from the company's perceived crisis response. Consequently, we assume that trust serving as a mediator between the perceived appropriateness of crisis response of a company and consumers' behavioral intentions might be closely linked to involvement or personal closeness to the brand, as provided in the domestic bias for a brand. Another possible explanation for this direct relationship between US respondents' perceived appropriateness of crisis response and their behavior might lie in the (legal) culture that strives for just punishment in the US as explained, for example, by [Uhlmann et al. \(2009\)](#). The desire for just punishment might have caused American respondents to assess VW's crisis response in a more direct manner in which trust might be considered as an “unjust” interference with the “objective” judgment of the response.

8. Implications for theory and management

Proof of the structural model confirms the previously developed commitment-trust-theory by [Morgan and Hunt \(1994\)](#). By adding the dimension of domestic bias, we further differentiated the role of trust as a mediator of the relationship between perceived appropriateness of crisis response and consumers' behavioral intentions. A major finding within our study is that the role of trust as a mediator may deteriorate outside the “home environment” of a company or brand. The results show that within the foreign market the effect of crisis response on consumers' behavioral intentions is only partially mediated by trust. More specifically, although the results show that perceived appropriateness of crisis response has a strong influence on trust regardless of country of origin, we were able to prove that domestic bias affects all other structural relationships.

Our research suggests that the direct responses of domestic consumers seem to be less elastic when confronted with crisis events and resulting communications compared to consumers in a foreign market. Consumers often share a long history with their domestic brands and it seems logical that their brand relationship is more stable since it is based on multiple brand experiences. Therefore, we do not find evidence for the domestic bias serving as an amplifier of positive factors in the given context. Instead, we identify a “dampening” effect of the domestic bias which is double-edged in the VW case: on the one hand, it weakens the harmful effects of an unfavorably perceived crisis response; however, on the other hand, it also results in weaker positive effects of a favorably perceived crisis response. Thus, our results show that domestic bias is a powerful, although not always favorable, influencer of the perceived appropriateness of crisis response – consumer behavior relationship. This adds further insights to earlier studies on domestic bias by for example [Sharma et al. \(1995\)](#) or [Balabanis and Diamantopoulos \(2004\)](#).

The implications for management are threefold. First, we can postulate that appropriate crisis response during a scandal such as sincere apologies, information transparency, and effective problem solving will definitely have a positive influence on trust in that company and consumers' behavioral intentions.

Second, for short-term damage control, appropriate crisis response seems to have a more immediate impact on consumers' reactions in the US than in Germany. Trust, on the other hand, will have a weaker effect on avoidance or revenge intentions of consumers outside the company's home country. Companies must, therefore, expect a more direct behavioral response from consumers outside their home country based on their evaluation of a company's crisis response. This will be particularly important for ethnocentrically oriented companies and management. However, due to the strong link between crisis response and trust (regardless of country of origin) and especially between trust and revenge as well as avoidance intentions, crisis response also deserves major attention in the domestic market.

Third, we understand trust to be a key symptom and cornerstone of the relationships between brands and their local consumers. However, this trust should certainly not be taken for granted. Quite the opposite, it needs to be nurtured and shielded otherwise it may erode over time resulting in strong negative behavioral reactions towards the brand. In the worst case, loss of trust might result in ‘a longitudinal love-becomes-hate effect’ ([Grégoire et al., 2009](#) p. 18), if the threats to the relationship remain unresolved or, as we might suggest, repeat themselves.

9. Limitations and future research

We are fully aware of the limitations and shortcomings of conducting cross-cultural studies where it is practically impossible to control all possible interference of cultural artifacts. Careful consideration must be given to the fact that we only considered a single case. We, therefore, suggest that even though strong evidence supports the structural model in both countries, the model should be tested in other countries and in other company and product category settings.

Although the data was collected in both countries at random, structural differences such as age distribution exist compared to the total population. However, except for the relationship between age and avoidance intentions, we found no evidence to show that age

influenced the results. Furthermore, the US sample includes less VW car owners than the German sample which may explain the non-significant effect of the control variable ‘ownership’ in the US sample.

As it has been possible to show evidence for the influence of domestic bias on the relationship between perceived crisis response, trust and behavioral intentions, we encourage studies to test our model with additional influencing factors such as involvement with the brand or brand loyalty as well as to further investigate the role of trust as a mediator in different country and cultural settings.

A more highly differentiated analysis of cross-cultural perceptions and the effects of different organizational crisis responses or elements (e.g. apology vs. financial compensation) would also add to the understanding of crisis management in an international context.

Future research could analyze the function of the domestic bias as a “dampener” in various contexts. This would help to bridge the gap between this research and previous research on trust by, for example, Grégoire and Fisher (2006) or Grégoire et al. (2009).

Finally, we would encourage further, more descriptive or qualitative studies in order to gain a more thorough understanding of the underlying principles and consumers' deep-seated motives for the findings presented.

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