

Crisis communication via social media: The interplay of sender, crisis type and brand type

Master Thesis

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Graduation date:
24th of April 2015

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Abstract

In the last decade social media has become increasingly part of strategic crisis communication, due to its dialogic nature as well as its far reach and speediness to spread messages. Yet, classical crisis communication research has neglected the factors influencing crisis communication via social media. This study contributes to this research field by experimentally investigating to what extent the sender, either brand or traditional media, and the crisis type, either symbolic or functional, affect the outcomes of a crisis message for brands. Furthermore, brand type is investigated as a moderator and cultural differences were considered. Results indicate that disclosure of a crisis message by the brand lessens the negative effects of the crisis on brand reputation and the attitude towards the brand. Moreover, if the crisis is related to the values and ethics of the brand, brand-disclosure becomes even more favourable than in a crisis related to product failure. Also, results show that neither sender nor crisis type affect the likelihood with which consumers engage in secondary crisis communication (e.g. sharing of the message) or secondary crisis reaction (e.g. boycotting the brand). Lastly, functional brands are more likely to be boycotted due to a symbolic crisis and cultural differences have significant effects in crisis communication.

Acknowledgments

Concluding my student life with this master thesis brings an end to an era. Along the way many people have helped me to find my path and my passion in life.

I want to thank first and foremost my family for their ongoing support. I never quite liked taking the direct way in life; I'd rather go on another adventure abroad than quickly finish my study. My family has always supported me in all the detours I took; they gave me the possibility and the freedom to become the well-educated, travelled and spirited adult I'm now. Words cannot express how grateful I'm. Thank you all so much.

Likewise I want to thank my teachers. Shaping young minds and getting them excited about learning is tough. I was very lucky to have many passionate and brilliant teachers,

who were happy to share their knowledge. I want to especially thank Dr. Sabrina Hegner, for pushing me over the finish line, to always be approachable and to continuously give me quick and constructive feedback. Also, I want to thank Dr. Ardion Beldad for the final check and that different view point every good thesis needs.

Last but not least, I want to thank my study comrades. Together we have stressed about tight deadlines and celebrated our accomplishments. Only the ones with you in the trenches know how it truly feels and they are the best at motivating you to keep going. So thanks guys, for always having the right words and for sharing the ups and downs together.

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1 Introduction

In our times of instant communication, social media and worldwide news coverage, companies have to become ever more transparent. Negative information about a brand can easily be revealed to the public and possibly reach a vast audience, which might lead to a crisis. A crisis can be defined as “any problem or disruption that triggers negative stakeholder reactions that could impact the organization’s financial strength and ability to do what it does” (I.C.M., 2008, p. 1). This poses a great threat to corporations; a crisis can irreparably damage the brand’s reputation and lead to loss of trust and revenue (Coombs, 2007, Wigley & Pfau, 2010). A crisis can strike any company at any time; their ability to respond well to the crisis is what sets them apart (Vassilikopoulou et al., 2009). Hence, finding strategies to prepare for, respond to and limit the negative effects of a crisis, has been an ongoing subject matter in academic literature and become a great interest to communication professionals (e.g. Avery et al., 2009; Veil et al., 2011; Duhé, 2014).

Past research on crisis communication has focused on the relation between crisis type and appropriate crisis communication strategy. A well-known theory in this research area is the Situational Crisis Communication Theory (SCCT) by W.T. Coombs (2007). It proposes that the response to a crisis should be matched to the level of crisis responsibility the brand has and the level of reputational threat the crisis poses. Through the emergence and the importance of Coombs Situational Crisis Communication Theory (2007) much research in the field of crisis communication has focused on the right strategy to respond to a crisis, without particularly focusing on either sender or medium (Schultz et al., 2011; Fennis & Stroebe, 2014; Liu et al., 2011). The focus has been on the message itself and how it will be received by the crisis public (Coombs and Holladay, 2014).

However, one of the most basic notions of communication is Lasswell’s model of communication (1948). He asked five basic questions to illustrate an act of communication: “Who says what in which channel to whom with what effect?” (p.117). As one of the most influential and “perhaps the most famous single phrase in communication research”(McQuail & Windhal, 1993, p. 13), it has been neglected in crisis research. The “who” and “which channel” are understudied in crisis communication research.

With the emergence and rising importance of social media, scholars have only recently started to investigate to what extent the medium plays a role in crisis communication and attributed it an important role (Schultz et al., 2011; Liu et al. 2011; Utz et al., 2013). Scholars have proposed that social media like *Facebook* or *Twitter* are mediums which offer unique communication possibilities, thus influencing the way a crisis message is received (Schultz et al., 2011; Liu et al. 2011; Utz et al., 2013). However, studies on crisis communication via social media are still sparse and many factors have not yet been investigated.

First, what is the impact of sender in crisis communication via social media? The sender of the message has a great impact on how a message is received; his credibility and competence influence public perception of a crisis message (Ruhrmann, 2008). In a social media environment the influence of different senders is understudied.

Second, what is the impact of different crisis types in crisis communication via social media? Corporate crises can be various and are not easily dealt with as each crisis takes its individual course (Becker, 2008). But classifying crises according to the corporate benefits they question can help distinguish the effects different types of crises have in crisis communication via social media.

Lastly, what is the impact of the brand in crisis communication via social media? Especially brand positioning, thus the brand type, has a great impact on how stakeholders view a brand (Park et al., 1986). Brand types can influence how a crisis message is perceived and how stakeholders rate the severity of crises (Pham & Muthukrishnan, 2002). Therefore, the way a brand is perceived, if they are either symbolic brands with a focus on values or functional brands with a focus on products, could influence the effect that sender and crisis type have in crisis communication via social media.

Consequently, this study wants to contribute to the research field of crisis communication via social media and gain more insights for theoretical and practical applications. This study investigates if sender and crisis type have an effect on the outcomes of a crisis message. Additionally, it examines if the brand type has an influence on these relationships. This leads to the following research questions.

RQ1: *To what extent do sender and crisis type influence the effects of a crisis message communicated via social media?*

RQ2: *Does brand type moderate the effects of sender and crisis type in crisis communication via social media?*

2 Theoretical Framework

2.1 Crisis communication via social media

Due to social media's increasing importance in everyday life, its fast and vast growing applicability and usability as well as its reach across the globe, it has been one of the biggest phenomena in the 21st century (González-Herrero & Smith, 2008). Consequently, social media also has been increasingly integrated into the communication processes of large and small corporations, NGO's and governments in the last years (Macnamara & Zerfass, 2012; Pleil, 2012; Linke & Zerfass, 2012). In strategic online communication social media can be utilised by organisations to support ongoing communication strategies, build online reputation, monitor social media communications from its stakeholders as well as engage in dialogue and build relationships with different stakeholder groups (Zerfass & Pleil, 2012).

Additionally, because of its dialogic nature plus its far reach and speediness to spread messages, social media has become part of strategic organizational crisis communication. Advantageous is that concerned publics can be quickly informed, kept up-to-date on ongoing developments and be engaged interactively (Schultz et al., 2011; Utz et al., 2013). Corporations can use social media in a crisis as an effective communication tool to lessen the negative effects a crisis can have and prevent a crisis from spiralling out of their control (Utz et al., 2013). It gives them the opportunity to act timely, share the information about the crisis themselves and, if well executed, also direct the public conversation about the crisis.

However, to use social media in a crisis effectively corporations have to understand crisis communication via social media better. Few recent studies have investigated aspects of online crisis communication. For example, an experimental research by Schultz, Utz & Göritz (2011) found that the medium has a significant effect in crisis communication in such a way that a crisis message distributed via Twitter lead to a lower likelihood to boycott the organization than the same message distributed via a blog or a newspaper article. They attributed this to the fact that Twitter allows an immediate reaction of the brand to the crisis, thus giving the message greater brand credibility. Another study by Kelleher (2009) found that blogs are perceived as more human and committed to maintaining a good relationship with the customers than corporate websites. Kerkhof et al. (2011) demonstrated in their experimental research that a personal tone of voice in a social media crisis messages lead to

fewer negative thoughts about the brand after reading the message than an impersonal tone of voice. Utz et al. (2013) surprisingly found in their study that crisis messages lead to less word-of-mouth if they are distributed via social media channels, because publics were more likely to share the crisis information if they had received it via a traditional media channel like a newspaper, which they perceived as more credible. All in all, it becomes apparent in these studies that social media is a new and important medium for crisis communication, which has yet to be fully explored. It is not only significant to focus on what to say as SCCT suggests (communication strategy), but also to take into consideration where to say it (medium), who says it (the sender) and in what manner (tone of voice) (Kerkhof et al., 2011).

2.2 Dependent variables in crisis communication

If a crisis strikes corporations fear the negative effects the crisis can have. As mentioned before crisis is dreaded amongst corporations because they can damage the brand reputation, resulting in loss of revenue, market share and trust (Coombs, 2007; Wigley & Pfau, 2010; Wrigley et al., 2003). To better understand these effects scholars have focused in recent literature on measuring the effects a crisis can have on brand reputation (Schultz et al., 2011; Utz et al., 2013; Coombs, 2011). Other key variables, which can suffer from a crisis, are attitude towards the brand, secondary crisis communication and secondary crisis reaction as well as purchase intention. These will be explained in the following.

Brand reputation is an intangible asset to brands as it essentially encompasses the perception the public has about an organization (Seibold, 2009). It can be defined as the “aggregate evaluation that stakeholders make about how well an organization is meeting stakeholder expectations based on past behaviours” (Coombs and Holladay, 2012, p. 35). Brand reputation is a very important asset for corporations as it is linked to “attracting customers, motivating employees, retaining employees, generating investment interest, increasing job satisfaction, generating positive comments from financial analysts, generating positive news media coverage, attracting top employee talent, and improving financial performance” (Coombs and Holladay, 2012, p. 35). Thus, brand reputation distinguishes a brand from its competitors (Caves & Porter, 1977). If a crisis impacts on this asset, it can hinder brands; an unfavourable reputation can even lead to a boycott of the brand by stakeholders and negative word-of-mouth (Boulstridge & Carrigan, 2007; Coombs, 2007).

Hence, strategic crisis communication tries to find the right approach to lessen the negative effects a corporate crisis will have on brand reputation.

Connected to brand reputation is attitude towards the brand. An attitude is “an index of the degree to which a person likes or dislikes an object” (Ajzen and Fishbein, 1980, p. 64). Mitchell and Olson defined attitude towards the brand as an “individual’s internal evaluation of the brand” (1981, p. 318). Attitudes are thus based on a general assessment an individual makes about a brand. Accordingly, attitude towards the brand is linked to brand reputation, since it also describes the perception of the brand, but it is a simpler construct. An attitude is a more overall perception of the brand opposed to brand reputation, which is more complex and connected to the values of the brand. Thus, it might occur that the negative effects a crisis message has on attitude towards the brand are greater than the effects on brand reputation, as an attitude can be judged quite quickly.

Studies have also used secondary crisis communication and secondary crisis reaction as dependent variables to measure the effects of a crisis message, especially in a social media environment. Schultz et al. (2011) defined secondary crisis communication “as the recipients’ intentions to tell friends about the crisis, to share the received information with others and leave comments;” and secondary crisis reactions “as the willingness to boycott the organization and to persuade others to do so”. Thus, both constructs rather measure behavioural intention than state of mind and include the important aspect of electronic word-of-mouth.

Secondary crisis communication is similar to word-of-mouth, but it also takes the possibilities of social media into account; on the social web it is extremely easy to share and spread information, one click can share the message with hundreds of people (Utz et al., 2013). Traditional word-of-mouth along with electronic word-of-mouth have high value to corporations, due to the benefits connected with positive word-of-mouth and the potential damage that negative word-of-mouth can cause (Coombs & Holladay, 2008; Laczniak et al., 2001). Thus it is very important to investigate to what degree people actually intent to share a crisis message on the social web.

Secondary crisis reaction is comparable to the more traditional variable of behavioural intention, which encompasses the future purchase intentions of consumers and their likelihood to switch to another brand, thus boycotting the brand (Stockmyer, 1996). But

secondary crisis reaction also encompasses the chance that stakeholders would encourage others to follow their antagonistic behaviour towards the brand (Schultz et al., 2011). As it is also very easy to encourage negative behaviour towards a brand via social media, secondary crisis reaction is another important variable when investigating crisis communication via social media.

In conclusion, a crisis can have tremendous negative effects on brands. This study will focus on organizational reputation and attitude towards the brand as well as secondary crisis communication and secondary crisis reaction as dependent variables.

2.3 Effects of sender in crisis communication

Only recently have scholars begun to primarily investigate the effects of sender and medium in crisis communication. As mentioned before, Schultz et al. (2011) and Utz et al. (2013) investigated in different settings the effect which a medium has in crisis communication, by comparing traditional media with different social media channels. Two interesting studies by Liu et al. (2011) and Fennis and Stroebe (2014) focused particularly on the sender of the crisis message.

Liu et al. (2011) focused partially on the sender of crisis information as they investigated if different crisis response strategies have different effects if they were sent by either the organization or a third party via different media channels. They found that the public's emotional response to a crisis differs significantly according to the message and the sender. For example, publics were most likely to accept an organization's supportive crisis response strategy if they learn about the crisis from a third party and not from the organization itself, but defensive and evasive crisis responses had better results if the organization was the sender (Liu et al. 2011).

Fennis and Stroebe (2014) published a very recent study in which they investigated if only the sender, without any other manipulation of the message, has an effect on the reputation and trustworthiness of an organization in crisis communication. In a series of three studies they examined if the disclosure of negative information via a newspaper article had a different effect if the negative information was disclosed by the organization itself or by a third party. They found that if an organization released crisis information themselves, it had lessening effects on the damaging effects of the crisis, but only if the organization had a

poor reputation at the outset. If an organization had a good reputation before the crisis occurred, this would function like a “halo effect”, thus negating the damaging effects of the crisis, no matter who disclosed the information.

These studies show that the sender plays a crucial role in crisis communication, especially when it comes to who discloses the crisis information first – the organization itself or a third party. This is interesting as one would assume that the natural reaction of a company would be to try to hide crisis information in fear of the negative effects it may have. But that always holds the risk that the negative information comes to light in a different way, which could make the scandal even worse. It would appear like the brand wanted to hide the negative information, giving it even more weight and importance (Dolnik et al., 2003). Especially, if the negative information was released via an established news entity instead of the organization; it would give the crisis more credibility and put the organization in a defensive position, thus possibly enhancing the damaging effects of the crisis (Murphy, 1989; Arpan & Roskos-Ewoldsen, 2005).

Opposed to that is the strategy that the organization is the sender of the negative information. Releasing the crisis information themselves, the organization is able to take control over the crisis to a certain extent; they can influence the time and the medium in which the crisis message is released. Timing is important as it influences the flow of information. If the organization releases it first, they “stole the thunder” (Arpan & Pompper, 2003). Stealing thunder means that the organization is not reacting to the news of a crisis, but acts proactive, thus being in charge of the discussion. Additionally, it holds the advantage that it is unexpected, as it appears to be against the company’s self-interest. Research suggests that message recipients have certain expectations to the position an organization will take in its messages, which in most cases is biased by the assumption that the message will be in the company’s interest (Fennis & Stroebe, 2014; Eagly et al. 1978, 1981). If the message confirms these expectations, recipients question the credibility of the message itself and of the sender. Hence, it might be more effective for organizations to counter this bias by disclosing the crisis information themselves, without trying to frame the message in a positive light (Fennis & Stroebe, 2014). If a company follows this strategy, it might lessen the negatives effect a crisis message can have on the aforementioned dependent variables

organizational reputation, attitude towards the organization and secondary crisis communication and reaction.

To conclude, in most research on crisis communication via social media the sender has not been investigated singularly without the message being manipulated in another way. Thus, it is very interesting to see if the effects demonstrated in the previous studies can be replicated in a social media environment and moreover; if the effects shown by Schultz et al. (2011) and Utz et al. (2013) are actually attributed to the medium or rather the sender, since they were mixed with each other in these two studies. In a social media environment, who discloses the information first is even more interesting than in a traditional media setting, since the company as the sender of the message is also the voice of the message. The company does not have to rely on the media to transmit their message. Hence, if the negative effects of the crisis message are lessened by brand-disclosure then social media is the perfect medium for this message, because it can give the corporation an even more credible voice. Therefore, the following hypotheses are formulated.

***H1a:** Brand-disclosure of a corporate crisis message via social media leads to higher brand reputation and attitude towards the brand than media-disclosure of a corporate crisis message via social media.*

***H1b:** Brand-disclosure of a corporate crisis message via social media leads to less secondary crisis communication and less secondary crisis reaction than media-disclosure of a corporate crisis message via social media.*

2.4 Effects of crisis type in crisis communication

In studying the effects a crisis can have on brands it is important to distinguish the nature of the crisis. Corporate crises can reach from a CEO overstepping the line by making a disregarding comment towards women in the workplace, like Microsoft CEO Satya Nadella did in 2014, to product-failures which cost lives, like the General Motors recall scandal revealed in 2014. As these crises are so different in their typology, it is feasible that there will be different effects on brand reputation, attitude towards the brand and secondary crisis communication and secondary crisis reaction depending on crisis types. For that reason this study differentiates between symbolic crisis type and functional crisis type.

Symbolic crises are related to the more intangible assets of brands: their values and ethics. In previous research this crisis type has also been called value-related crisis (Pullig et al., 2006; Dutta & Pullig, 2011). Symbolic crises involve social or ethical issues, which in turn put the values and the morals of the brand in question (Dutta & Pullig, 2011). A symbolic crisis raises doubts whether the brand is able to deliver symbolic and psychological benefits (Pullig et al., 2006). Examples for symbolic crises are the exposure of a brand being connected to child labour, sexual harassment, racial discrimination or labour law violations (Pullig et al., 2006).

Functional crises are related to the palpable assets of brands: their products and services. This crisis type has also been called performance-related crisis or product-harm crisis in earlier studies (Pullig et al.; 2006; Dutta & Pullig, 2011; Dawar & Pillutla, 2000; Siomkos & Kurzbard, 1994). Functional crises involve a defect or failure of the actual product of a company, be it a tangible or an intangible product, which can render the product useless or even dangerous (Vassilikopoulou et al., 2009). Thus functional crises question the ability of the brand to satisfy functional benefits, such as solving consumption problems (Pullig et al., 2006). Examples of functional crises are the malfunctions of cars, contamination of food products or safety issues with toys (Cleeren et al., 2013).

In the past, especially in marketing research, the focus has been on functional crises instead of symbolic crises, since functional crises are almost perceived as omnipresent in today's society (Cleeren et al., 2013; Pullig et al., 2006; Whelan & Dawar, 2014). This perception can be rooted in the fact that their occurrences have become more frequent in the last decades, mostly due to more complex products, stricter product-safety laws and controls as well as more demanding and better informed consumers (Dawar & Pillutla, 2000; Cleeren et al. 2013). Symbolic crises are less studied; only two recent articles were found, which investigated the effects of symbolic crises (Pullig et al., 2006; Dutta & Pullig, 2011). This might be because researchers, especially in marketing, focus more on the tangible assets of brands and see functional crises as more severe. Additionally, in communication research the most frequent distinction of crisis type is founded on Coombs SCCT (2007), which suggests a different classification of crisis type based on the responsibility a company has for the crisis (e.g. Utz et al., 2013; Schultz et al., 2011; Claeys & Cauberghe, 2014). Thus, the

impact of symbolic crises is understudied, in particular when set in opposition to functional crises.

Since symbolic crises question the values and the ethical behaviour of brands, they challenge the reputation of the brand and the attitude stakeholders have towards the brand. Unethical behaviour has a great negative effect on brands, especially considering findings that unethical behaviour impacts attitudes more negatively than ethical behaviour impacts them positively (Reeder & Brewer 1979; Skowronski & Carlston, 1987; Carrigan & Attalla, 2001). In recent years the awareness and the judgment of the ethical behaviour of brands by consumers, especially in western countries, has immensely increased (Pecoraro and Ussitalo, 2014). Consumers identify themselves more with brands, thus they rather engage with ethical brands and judge ethically questionable brands more harshly (Leonidou et al., 2013; Huang, 2008). Hence, a symbolic crisis can majorly damage the reputation of the brand and negatively impact the attitude consumers have towards the brand. In contrast, functional crises do not question the ethical position of brands, but rather focus on a particular product. This might lead to a more focused and all together far less change in the standing towards the brand by consumers. Thus, it is arguable that the negative effects on brand reputation and attitude towards the brand are greater for symbolic crises than for functional crises.

However, when it comes to acting on this negative position towards a brand, there seems to be a gap between attitude and behaviour. It appears, that even when a consumer perceives a brand as not very ethical, they do not necessarily boycott that brand. "Ethical minded consumers, therefore, need not consistently buy [or act] ethically" (Carrigan & Atalla, 2001, p. 564). An explanation for this might be that consumers are just overwhelmed with information about brands and that in their purchase decisions price, quality and worth of products are simply more important than the ethical values of corporations (Boulstridge & Carrigan, 2000; Ulrich & Sarasin, 1995). This leads back to functional crises, because they are intrinsically linked to the quality and worth of products. Thus, a functional crisis might not affect brand reputation and attitude towards the brand as much negatively as a symbolic crisis does. But because consumers question the quality and worth of the company's products they might rather engage in negative behaviour towards the brand when exposed to a functional crisis, compared to when they are exposed to a symbolic crisis. This includes

a higher chance to boycott the brand, more negative word-of-mouth and, especially in the social media environment, the tendency to share the message more frequently.

To recall, the following hypotheses have been argued in the paragraph above:

***H2a:** A symbolic crisis message communicated via social media leads to lower brand reputation and attitude towards the brand than a functional crisis message.*

***H2b:** A symbolic crisis message communicated via social media leads to less secondary crisis communication and less secondary crisis reactions than a functional crisis message.*

2.4 Interaction effects of sender and crisis type

In studying the effects of sender and crisis type for crisis communication via social media it is also intriguing to investigate in which way these two factors interact in their effects. Whether or not a company should disclose negative information first is an important decision that depends largely on the crisis type. For functional crises the most significant part is that the public is informed; the need for information should be fulfilled (Dutta & Pullig, 2011). Thus it might be more adequate for a company to send a functional crisis message via proxy, e.g. an established media entity, to assure that a large audience is reached and to distance the company, at least in voice, from the crisis. Brand-disclosure of a functional crisis message, especially via social media, might even be a hindrance. Recipients may well feel an increased need to share that message in order to inform others about the possible dangers of defect products. If that functional crisis message becomes viral and is then eventually picked up by traditional media it might seem like the company wanted to “hide” the negative news because they only released it via their social media channels instead of immediately informing a larger audience.

For symbolic crises the need for information is less, since consumers do not seek as much information to address concerns about symbolic and psychological benefits as they do for functional benefits (Dholakia, 2001; Dutta & Pullig, 2011). Hence, for a symbolic crisis consumers do not necessarily expect extensive media coverage. Therefore, it might be advantageous for brands to disclose a symbolic crisis via their own social media channels. This shows the sincerity of the company, their openness for dialogue and investment in the relationship with the consumer (Schultz et al., 2011). As the crisis questions the values of the

company, speaking in the personal voice of the company might lessen the negative effects of the crisis. Additionally, symbolic crises are of more interest to consumers who are invested in the brand and who might take an ethical mistake even personal (Carrigan & Atalla, 2001). Disclosing a symbolic crisis message via social media would directly reach these invested consumers, because they are typically the ones who follow the social media channels of brands (Coombs & Holladay, 2014). These could greatly lessen the negative effects a symbolic crisis can have on brand reputation and attitude towards the brand. Based on this the following is reasoned:

H3a: Brand-disclosure of a symbolic crisis message communicated via social media leads to higher brand reputation and attitude towards the brand than media-disclosure of a symbolic crisis message communicated via social media.

H3b: Media-disclosure of a functional crisis message communicated via social media leads to less secondary crisis communication and less secondary crisis reactions than brand-disclosure of a functional crisis message communicated via social media.

2.5 Communicating in a crisis: moderator brand type

While researching crisis communication it is also important to note the perception people have about the corporation which is in crisis, as this might greatly influence the effects a crisis has. Differentiation of brand type can be various. This study focuses on a differentiation between functional and symbolic brand type as it is linked to the studied crisis types and it is the used classification in brand concept management (Park et al., 1986).

Functional orientated brands focus on external generated consumption needs, thus satisfying immediate and practical needs of consumers (Park et al., 1986). The brand's position concentrates on the specific characteristics, attributes and features of its products (Pham & Muthukrishnan, 2002). Symbolic brands fulfil internally generated needs, satisfying the needs for ego-identification, self-enhancement and prestige (Park et al., 1986). Their positioning emphasizes on abstract statements, which capture the characteristic of the brand and its products (Pham & Muthukrishnan, 2002). Brand positioning influences the view consumers have of brands; they form the overall brand associations in the minds of consumer (Aizen & Fishbein, 1980). Interestingly, even though functionality and symbolism are viewed as distinct concepts in research literature, it is possible for a single brand to be

perceived functional as well as symbolic (Bhat & Reddy, 1998). Thus this variable can also be seen as a measure on a continuum from being perceived as low to highly symbolic and low to highly functional.

Previous research has demonstrated that the perceived position of a brand influences the way consumers evaluate negative information they receive about the brand (Pham & Muthukrishnan, 2002; Pullig et al., 2006). The search-and-alignment model, developed by Pham and Muthukrishnan (2002), states that if new information challenges prior evaluations people engage in an active memory search to support their previous evaluation. Subsequently, a revision of that established attitude is more likely if the new information aligns with the information used to form it. Thus, if negative information challenges the prior formed attitudes of consumers, the greatest negative effect this information can have is, when the negative information matches with the prior attitude (Pham & Muthukrishnan, 2002; Muthukrishnan et al., 1999; Pullig et al. 2006).

To give an example of this reasoning: A brand is highly positioned on its symbolic values, as it engages in corporate social responsibility, communicates about its efforts for equality in the work place and uses sustainable work processes. Unexpected, this brand is confronted with a scandal, when information surfaces that the brand has employed children in their factories. Consumers, confronted with this news, will recall the aforementioned symbolic position of the brand and see the great discrepancy between the previous perceived values of the brand and its actions. Thus, the negative effects of the crisis are the greatest for this brand, because the crisis aligned with, and thus questioned, their core positioning. If the brand or the crisis had been functional, this discrepancy would have been smaller, therefore having fewer negative effects.

In conclusion, in coherence with the search-and-alignment model, perceived brand type functions as a moderator of the effects of crisis type in crisis communication. It is reasoned that symbolic crises have greater negative effects on symbolic brands than they have on functional brands and it turns functional crises have greater negative effects on functional brands than they have on symbolic brands:

H4a: For symbolic brands a symbolic crisis message leads to a) less brand reputation and attitude towards the brand and b) more secondary crisis communication and secondary crisis reaction than a functional crisis message.

H4b: *For functional brands a functional crisis message leads to a) less brand reputation and attitude towards the brand and b) more secondary crisis communication and secondary crisis reaction than a symbolic crisis message.*

Furthermore, the effects of the sender in crisis communication via social media can be influenced by brand type. Studies have found that consumers are more emotionally attached to symbolic brands than they are to functional brands (Thomson et al., 2005; Carroll & Ahuvia, 2006, Park & Lee, 2013). This is due to the fact that symbolic orientated brands tend to generate a stronger emotional response than functional orientated brands (Carroll & Ahuvia, 2006). As explained in the previous section, a brand-disclosure of negative information can lessen the negative effects of a crisis. By sending the negative information first, the company surprises stakeholders and steals the thunder (Arpan & Pompper, 2003; Fennis & Stroebe, 2014). It is arguable that, as people are more attached to symbolic brands, the positive effects of brand-disclosure are even greater for symbolic brands than they are for functional brands. Because brand-disclosure of the negative event seems more genuine, the previously felt attachment in symbolic brands is influenced considerably less negatively. Functional brands do not have this “emotional buffer”, thus the effectiveness of brand-disclosure decreases. Additionally, the medium of social media in which the brand-disclosure strategy is employed enhances the feeling of attachment with the brand, since it is more dialogic, quick and direct (Utz et al., 2013). Hence, the argument stands that the positive effects of brand-disclosure of a crisis message via social media are greater for symbolic brands than for functional brands.

H5: *For symbolic brands, brand-disclosure of a crisis message via social media leads to a) higher brand reputation and attitude towards the brand and b) less secondary crisis reaction and crisis communication than it does for functional brands.*

2.6 Control variables

Factors which influence the effects of crises on brands are manifold and cannot always be measured and/ or controlled for in scientific research. Nevertheless, this study controlled for two variables to rule out alternative explanation and to explore what the relationship between sender, crisis type and brand type in crisis communication via social media is,

when these variables are held constant (Vogt, 1999). The two variables controlled for are prior brand perception and prior brand involvement.

Prior brand perception means the overall perception stakeholders have of the brand before the crisis occurs. Fennis and Stroebe (2014) already found, that brands with a good reputation before the crisis are affected differently by a crisis than brands with a negative reputation prior to the crisis. Especially in the sender condition this is important, as brands with negative reputations surprise more by an act of brand-disclosure thus enhancing the positive effects of brand-disclosure in crisis communication (Fennis & Stroebe, 2014). Hence, it is important to control for this variable in order to achieve more viable results.

Prior brand involvement is defined as the degree of personal relevance a stakeholder experiences towards a brand before the crisis occurs. This definition is derived from Peter et al. (1999), who defined consumer involvement as “the degree of personal relevance which a stimulus or situation is perceived to help achieve consequences and values of importance to the consumer”(p. 7). Prior brand involvement is important to take into consideration as a factor in crisis communication research, because it can influence the way stakeholders perceive the crisis message (Huber et al., 2009). If stakeholders are highly involved in a brand, it means that they are more likely to feel an attachment to the brand which influences the way they perceive crisis messages (Park & Lee, 2013). Therefore, controlling for brand involvement allows viewing the relationship of sender, crisis type and brand type, while eliminating the variance in the results occurring from prior brand involvement.

In conclusion, this study will control for prior brand perception and prior brand involvement in order to eliminate the variance in the results explained by these variables. Consequently, error variance will be reduced and the relationships of the main factors can be better understood.

3 Methodology

3.1 Procedure

To test the hypothesis postulated in this study a 2 (sender: brand vs. media) x 2 (crisis type: symbolic vs. functional) factorial between subjects experimental design was used. Brand type (symbolic vs. functional) was included as a moderator. Brand reputation, attitude towards the brand, secondary crisis communication and secondary crisis reaction were the dependent variables. The study controlled for prior brand involvement and prior brand perception. See Figure 1.

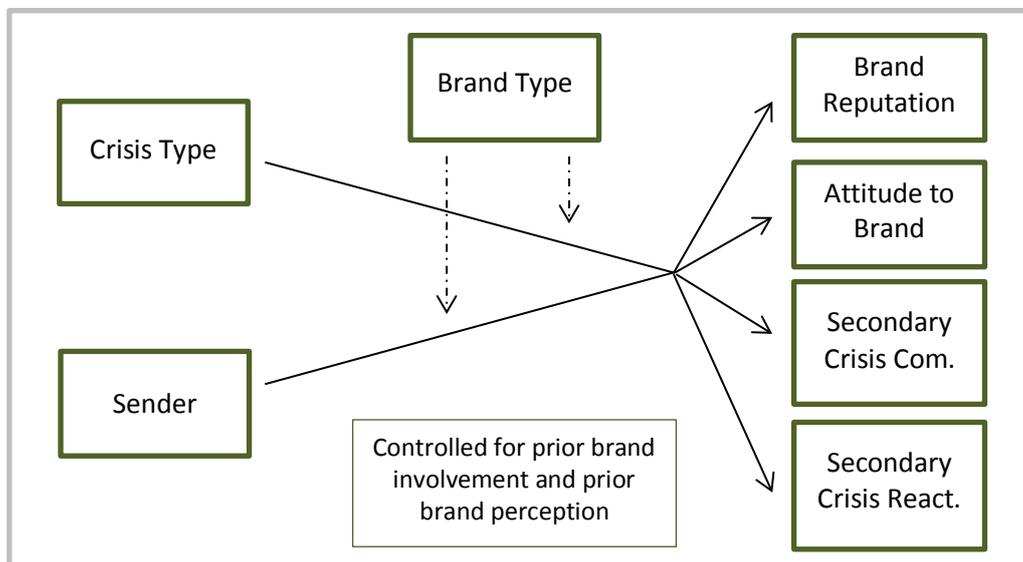


Figure 1: Research design

To ensure a large enough sample, the study was set-up in three different languages. These were English, Dutch and German. As the study was conducted at the University of Twente, Netherlands, these represent the main languages used in the region. Translations of the English version to the Dutch and German versions were conducted by native speakers of Dutch and German, respectively. For the experimental set-up different conditions were created to manipulate the independent factors accordingly.

For the sender conditions it was chosen to use a real-life brand and real media entities to ensure more genuine results. The selected brand was H&M, a well-known clothing brand. Pre-test results showed that H&M is a very familiar brand across different ages and countries. Additionally, H&M scored well on functional brand aspects as well as on

symbolic brand aspects, which made it possible to use one brand and still check for the moderator variable brand type. Well-known newspapers, which also have a high-profile online presence, were chosen for media entities. Different national groups were addressed with the three languages, therefore a different well-respected newspaper was chosen for each language: *The New York Times* for the English version, *de Volkskrant* for the Dutch version and *Die Zeit* for the German version.

For the crisis conditions different crisis scenarios were created. All scenarios were based on real crises and written by an experienced writer, who has journalistic as well as PR experience. To ensure that not one particular crisis has greater effects two different crisis scenarios were depicted for each condition. For the functional condition one crisis was concerned with a toxic chemical found in clothing fabrics, while the other involved clothing-items, which ripped easily and became see-through. For the symbolic condition one crisis involved the mistreatment of employees in supplier factories, and the other was about store managers, who spied on their employees. All scenarios were worded in a way that they only depicted the crisis itself, in a neutral way, having no form of message strategy such as apology or denial.

The conditions were all set in conjunction with each other, which resulted in eight conditions in three different languages, amounting to a total of 24 scenarios that were included in the study. All scenarios were placed in the look of a *Facebook* post of the respective sender. *Facebook* was chosen as the exemplary social media platform, since it is one of the best known and most used social media platforms. Additionally, *Facebook* is not only used for socializing, but also for information searching purposes (Hughes et al., 2012). All of the senders of the study have a *Facebook* page. Hence, *Facebook* was a good social media platform to test the hypotheses in. For a complete overview of the stimulus material see appendix B.

To conduct the study an online questionnaire was designed via Qualtrics.com. First, two Pre-tests were carried out, to test if the scenarios successfully manipulated the two independent variables. Since there was no adequate measurement for the manipulation of the crisis type a new scale for measuring the perceived crisis type was also tested in the Pre-tests. The final online questionnaire was available from January 27 to March 8, 2015. It was distributed via social media as well as the research platform SONA of the University of

Twente, where undergraduate students are encouraged to take part in studies. The data collection was anonymous and participants were randomly assigned to one of the conditions.

Participants were able to choose their preferred language. According to this choice the questionnaire continued in that language. In the introduction participants were informed about the procedure of the questionnaire. This was followed by demographic questions, questions concerning their social media usage as well as questions towards the brand. These included the familiarity with the brand, prior brand involvement, perceived brand type as well as prior brand perception. Next, participants were exposed to one of the experimental conditions. Afterwards the questions for the manipulation check as well as the dependent variable followed. For the complete questionnaire see appendix C (English version).

3.2 Participants

A total of 311 participants completed the questionnaire. After eliminating participants who did not correctly answer the questions for the manipulation checks (sender and medium) and a minority of 4 English speaking participants, 243 participants remained (28% male, 72% female). 105 people answered in the Dutch version (43.2%), 138 filled in the German version (56.8%). Accordingly, most participants were German (56.8%) followed by Dutch (43.2%). A majority of 59.7% were undergraduate students, followed by graduates of higher education (40.3%). The mean age of the participants was $M= 24.53$ ($SD= 9.4$). The high standard deviation shows that a multitude of age groups participated (min. 16, max. 77). Nevertheless, 70% of the participants belonged to the age group 20 to 30. 80.7% of the participants were heavy *Facebook* users (use social media daily or several times per day). Only 4.5% of the participants used *Facebook* never. The experimental conditions were randomly assigned. See Table 1 for the total amount of participants in each condition.

| | Functional Crisis | | Symbolic Crisis | | Total |
|----------------------|-------------------|------------|-----------------|------------|-------|
| | Scenario 1 | Scenario 2 | Scenario 1 | Scenario 2 | |
| Sender: Brand | 30 | 33 | 29 | 31 | 123 |
| Sender: Media | 26 | 33 | 28 | 33 | 120 |
| Total | 122 | | 121 | | 243 |

Table 1: Research design with number of participants

3.3 Measurement instrument

The scales used to measure the independent, dependent and control variables were mostly adapted from prior studies. See appendix A for a complete overview of all measurement items. Familiarity with the brand was measured on a seven point scale, reaching from 'very unfamiliar' to 'very familiar'. The medium and sender condition were measured by asking participants on what website they had read the message and who the sender of the message was (multiple choice questions).

Brand type was measured by adapting the scale from Voss et al. (2003), which was developed to measure the hedonic and utilitarian dimensions of consumer attitudes on brands. It contains 10 measurement items, 5 measuring the symbolic dimensions of a brand ($\alpha=.86$) and 5 measuring the functional dimensions of a brand ($\alpha=.75$). Items are dichotomous; examples are 'dull / fun', 'not functional / functional'. Crisis type was measured by a scale developed by the researcher in two previous Pre-Tests. The scale contains 4 dichotomous items ($\alpha=.94$), which set the perception of a symbolic crisis against the perception of a functional crisis, for example 'Crisis: Is related to the quality of brand X' products - Is related to the work ethics of brand X'. It was necessary to create a new scale for measuring perceived crisis type, because in the Pre-Tests it became apparent that previously used scales, such as the one from Pullig et al. (2006), did not deliver satisfactory results for this study.

The scale for prior brand involvement was again adopted from Voss et al. (2003), who in turn had their scale adapted from Rodgers and Schneider (1993). It contained 4 items ($\alpha=.90$) like 'I attach great importance to brand xxx'. Attitude towards the brand was measured by 5 items ($\alpha=.92$) adopted from Rodgers (2004), which included items such as 'good – bad', 'satisfactory – unsatisfactory'. Brand Reputation was measured using the organizational reputation scale developed by Coombs and Holladay (1996). The scale contains 10 items ($\alpha=.87$), which ask the participant to rate their agreement. Examples are 'Brand X is basically honest', 'I do trust brand X to tell the truth about the incident'. This scale was developed by Coombs and Holladay to measure especially the negative effects on brand reputation in crisis communication research and has been used in numerous studies. Brand perception was measured before and after the exposure to the crisis message on a seven point scale reaching from very negative to very positive. Article Credibility was

measured using 3 items ($\alpha=.90$) adopted from Qiu et al. (2012), including items such as ‘the article seems very untrustworthy / very trustworthy’.

Secondary crisis communication and secondary crisis reaction were both measured by items adapted from Schultz et al. (2011) and Utz et al. (2013), who had especially developed their scales to measure a combined construct of word-of-mouth, boycott and purchase intentions in online crisis communication. The scale for secondary crisis communication contained 5 items ($\alpha=.77$) reaching from ‘I would tell friends about the incident’ to ‘I would leave a reaction / comment on this social media post’. The scale for secondary crisis reaction also contained 5 items ($\alpha=.77$) combining Schultz et al.’s (2011) scale with a traditional purchase intentions scale adapted from Stockmyer (1996). Examples for items were ‘I would encourage friends or relatives NOT to buy products from brand X’ or ‘I will continue to buy products from brand X in the future’.

Overall, all items were measured on 7 degree scales, either on dichotomous scales or on Likert scales (anchored at 1 as ‘strongly disagree’ and 7 as ‘strongly agree’), except when expressively stated otherwise. All items exceeded the requirement of reliability at .7 with Cronbach alphas between $\alpha=.75$ (functional brand type) and $\alpha=.94$ (crisis type). A full overview of all Cronbach’s alphas is given in appendix A.

3.4 Manipulation check

To verify that the manipulation of the experimental conditions worked as intended manipulation checks were conducted. The sender and medium condition were confirmed by asking participants on which website they had read the article and who had send the message, providing several multiple choice answers. Participants who did not correctly answer these two questions were excluded from the data set. This ensures that only answers from participants who perceived the medium as *Facebook* and the sender as the brand, respectively the newspaper are included in the data, making the study overall more valid. Additionally, these two questions assured that the included participants had read the article attentively.

The crisis condition was checked by measuring perceived crisis type. The mean score for crisis type of the sample of functional crisis ($M = 3.1$, $SD = 1.5$) and symbolic crisis ($M = 6.0$ $SD = 1.1$) was examined using an independent samples *t*-test. As the samples size was

large and equally distributed, the violation of assumed equal variances can be discounted (Stern, 2011). The t -test showed that the means differed significantly, $t(219) = -17.6, p < .001$. As the scale for crisis type was set-up in a way that a low score represents a functional crisis and a high score a symbolic crisis, the t -test showed that participants in the functional crisis condition perceived the crisis as functional and participants in the symbolic crisis condition perceived the crisis as symbolic.

Moreover, it was tested if the perception of the brand had changed due to the disclosure of the crises. Thus, brand perception was measured before ($M = 4.88, SD = 1.2$) and after ($M = 4.13, SD = 1.3$) the experimental condition. A paired sample t -test showed the difference between the means was significant, $t(242) = 10.1, p < .001$. Hence, the crises affected brand perception negatively.

To conclude the manipulation check, the crisis scenarios were tested on article credibility, because it was believed that all used scenarios should be considered as credible in order to ensure that they were perceived as “real”. In the Pre-test all eight scenarios had scored non-significant on all conditions, indicating that the scenarios were perceived as equally credible, if participants were exposed to all of them. But in the main study results indicated something interesting. A three-way ANOVA for independent groups for the effect of sender (brand, media), crisis type (functional, symbolic) and scenario version (1, 2) on article credibility revealed significant effects. Firstly, a main effect of sender was found, $F(1, 235) = 6.35, p = .012, \text{partial } \eta^2 = .026$, such that participants in the media condition ($M = 4.57, SD = 1.1$) scored higher on article credibility than participants in the brand condition ($M = 4.23, SD = 1.3$). Secondly, a significant main effect of crisis type was shown, $F(1, 235) = 25.1, p < .001, \text{partial } \eta^2 = .096$, such that participants in the functional crisis condition ($M = 4.78, SD = 1.2$) scored higher on article credibility than participants in the symbolic crisis condition ($M = 4.02, SD = 1.1$). There were, however, no main effects for scenario version and no interaction effects. These results indicate that perceived article credibility is influenced by the sender as well as the crisis type. But because the scenario version was non-significant (as it was for all dependent variables in the study) it can be concluded that this is not due to a failed study set-up (e.g. that the written scenarios had a different impact), but rather that perceived article credibility is dependent on who sends the message and what crisis type the message is portraying. Thus, article credibility should be considered as a dependent variable.

4 Results

4.1 Main and interaction effects

To test the hypotheses several ANOVAS and ANCOVAS were run using SPSS GLM. In this section the main and interaction effects will be discussed. Firstly, the main and interaction effects of both sender and crisis type on all dependent variables will be listed without including the control variables. Secondly, the control variables will be included using them as covariates in the ANCOVA analysis.

4.1.1 Main and interaction effects without control variables

The effect of sender (brand, media) and crisis type (functional, symbolic) on brand reputation was examined using a two-way ANOVA for independent groups. Descriptive statistics for brand reputation as a function of the levels of the two factors are shown in Table 2. There was a significant main effect of sender, $F(1, 239) = 8.70, p = .003$, partial $\eta^2 = .035$, such that participants in the brand condition ($M = 4.53, SD = 0.96$) scored higher on brand reputation than participants in the media condition ($M = 4.18, SD = 0.88$). Also, there was a significant main effect of crisis type, $F(1, 239) = 4.84, p = .029$, partial $\eta^2 = .020$, such that participants in the symbolic crisis condition ($M = 4.22, SD = .88$) scored lower on brand reputation than participants in the functional crisis condition ($M = 4.48, SD = .97$).

Next, the effect of sender and crisis type on attitude towards the brand was calculated using an ANOVA. No significant effects were found and the model accounted for only 1,6% of the total variance in the dependent variable attitude towards the brand.

To test the main effects of sender and crisis type on secondary crisis communication and secondary crisis reaction a MANOVA was run. No significant effects were found on the dependent constructs. In addition also ANOVAS revealed no significant effects on secondary crisis communication or secondary crisis reaction. Hence, the factors sender or crisis type did not have a significant effect on these dependent variables. However, to be noted is that the general means of the dependent variables were very low: secondary crisis communication ($M = 2.44, SD = 1.04$) and secondary crisis reaction ($M = 3.36, SD = 1.05$).

| Dependent Variable | Crisis Type | Sender | | | | | |
|--------------------------------|-------------|--------|--------|-------|--------|-------|--------|
| | | Brand | | Media | | Total | |
| | | M | (SD) | M | (SD) | M | (SD) |
| Brand Reputation | Functional | 4.63 | (1.00) | 4.33 | (.91) | 4.48 | (.97) |
| | Symbolic | 4.42 | (.90) | 4.02 | (.82) | 4.22 | (.88) |
| | Total | 4.53 | (.96) | 4.18 | (.88) | 4.35 | (.93) |
| Attitude towards the brand | Functional | 4.30 | (1.08) | 4.28 | (.97) | 4.29 | (1.02) |
| | Symbolic | 4.27 | (1.02) | 3.93 | (1.10) | 4.12 | (1.07) |
| | Total | 4.29 | (1.05) | 4.13 | (1.05) | 4.13 | (1.05) |
| Secondary Crisis Communication | Functional | 2.39 | (.94) | 2.33 | (1.14) | 2.37 | (1.04) |
| | Symbolic | 2.58 | (1.11) | 2.46 | (.97) | 2.52 | (1.03) |
| | Total | 2.48 | (1.03) | 2.40 | (1.05) | 2.44 | (1.04) |
| Secondary Crisis Reaction | Functional | 3.32 | (1.14) | 3.36 | (1.00) | 3.34 | (1.08) |
| | Symbolic | 3.28 | (.98) | 3.49 | (1.05) | 3.39 | (1.01) |
| | Total | 3.30 | (1.06) | 3.43 | (1.03) | 3.36 | (1.05) |

Table 2 Descriptive statistics of dependent variables as a function of sender and crisis type

4.1.2 Testing the control variables

Both control variables demonstrated their fit as control variables as they were tested for the assumptions of independence from the experimental conditions and the homogeneity of regression slopes. Independence was tested by entering prior brand perception and prior brand involvement as dependent variables in an ANOVA, with sender and crisis type as factors. There were no significant main or interaction effects of sender and crisis type on either of the control variables. The parallel relationship of the regression slopes was tested with a customized ANCOVA model, entering sender, crisis type and the control variables in the model and checking for interaction effects. There were no significant interaction effects for sender, crisis type, prior brand perception and prior brand involvement on any of the dependent variables, confirming the assumption of homogeneity of regression slopes. This proves that the relationship between the dependent variables and the two control variables was not significant different in any of the experimental conditions. See Table 3 and Table 4 for an overview of these results. In conclusion, both variables, prior brand perception and prior brand involvement, were confirmed as control variables and thus entered as covariates in the proceeding analyses.

Table 3 Testing control variables for independence; results of ANOVA with sender and crisis type as factors

| Factors | Dependent Variables | |
|----------------------|------------------------|---------------------|
| | Prior Brand Perception | Prior Brand Involv. |
| | F (p-value) | F (p-value) |
| Sender | .80 (.372) | 1.06 (.305) |
| Crisis Type | .23 (.635) | .63 (.429) |
| Sender x Crisis Type | 1.14 (.286) | .36 (.549) |

| Factors | Dependent Variables | | | |
|---|---------------------|----------------------------|--------------------------------|---------------------------|
| | Brand Reputation | Attitude towards the brand | Secondary Crisis Communication | Secondary Crisis Reaction |
| | F (p-value) | F (p-value) | F (p-value) | F (p-value) |
| Sender x prior brand perception | .29 (.585) | .29 (.590) | .03 (.854) | 1.31 (.254) |
| Sender x prior brand involvement | 1.24 (.266) | 3.32 (.070) | 1.87 (.172) | .001 (.978) |
| Crisis Type x prior brand perception | .86 (.356) | .28 (.599) | .29 (.593) | .66 (.416) |
| Crisis Type x prior brand involvement | 1.89 (.170) | .01 (.928) | .49 (.487) | .002 (.961) |
| Crisis Type x Sender x prior brand perception | 2.63 (.106) | 3.26 (.072) | .59 (.150) | .007 (.934) |
| Crisis Type x Sender x prior brand involvement | .59 (.445) | 1.34 (.715) | 1.01 (.317) | .24 (.625) |
| Crisis Type x Sender x prior brand involvement x prior brand perception | .66 (.620) | .85 (.497) | .42 (.797) | .30 (.876) |

Table 4 Results for testing the assumption of homogeneity of regression slopes by conducting a customized ANCOVA model entering sender, crisis type and the control variables in the model and investigating their interactions.

4.1.3 Main and interaction effects with control variables

Next ANCOVAs were conducted, using the same procedure as with the original ANOVA but entering prior brand perception and prior brand involvement as covariates into the model. By controlling for prior brand perception and prior brand involvement the variance in the dependent variables was reduced, making the model more robust and identifying the relationship between the experimental factors and the dependent variables more clearly.

For brand reputation, with the control variables the whole model accounts for 32.1% of the variance in the dependent variable brand reputation, when it accounted without the control variables for only 5.5% of the variance. Additionally, the significance of both main effects increased, for sender to $F(1, 237) = 13.03, p < .001$, partial $\eta^2 = .052$, and for crisis type to $F(1, 237) = 8.7, p = .003$, partial $\eta^2 = .036$.

For attitude towards the brand an ANCOVA was also run, entering the control variables prior brand perception and prior brand involvement. There was a significant main effect of sender, $F(1, 237) = 3.00, p = .047$, partial $\eta^2 = .016$, such that participants in the brand

condition ($M= 4.29$, $SD= 1.05$) scored higher on attitude towards the brand than participants in the media condition ($M= 4.13$, $SD= 1.05$). Also, there was a significant main effect of crisis type, $F(1, 237) = 5.31$, $p = .022$, $\text{partial } \eta^2 = .022$, such that participants in the symbolic crisis condition ($M= 4.12$, $SD= 1.07$) scored lower on attitude towards the brand than participants in the functional crisis condition ($M= 4.29$, $SD= 1.02$). Overall, the whole model accounted for 47.4% of the total variance in the dependent variable attitude towards the brand.

Without the control variables interaction effects between the two conditions sender and crisis type were not found for any of the dependent variables. But the ANCOVA revealed that, with controlling for prior brand perception and prior brand involvement, the interaction of sender and crisis type on attitude towards the brand is significant, $F(1, 237) = 4.95$, $p = .027$, $\text{partial } \eta^2 = .020$, such that participants in the media plus functional crisis condition ($M= 4.28$, $SD= .97$) scored higher on attitude towards the brand, than participants in the media plus symbolic crisis condition ($M= 3.93$, $SD= 1.10$), while participants in the brand plus functional crisis condition ($M= 4.3$, $SD= 1.08$) and brand plus symbolic crisis condition ($M= 4.27$, $SD= 1.02$) had similar scores. See also Figure 2.

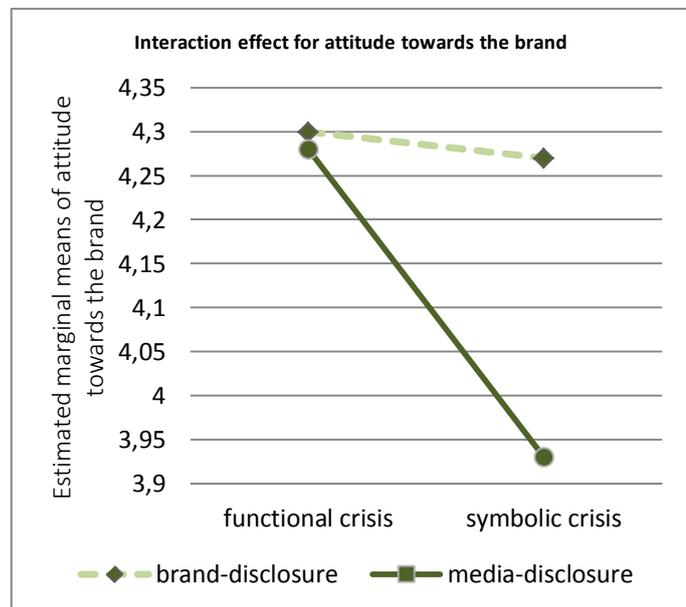


Figure 2 Interaction effects of sender and crisis type on attitude towards the brand (ANCOVA results)

For secondary crisis communication and secondary crisis reaction the ANCOVAs did not reveal an increase in significant effects. Nevertheless, the total amount of variance explained by the model increased as well for these two dependent variables if the control variables were included. For secondary crisis communication, with the control variables the whole model accounts for 2.1% of the variance in the dependent variable, when it accounted without the control variables for only 0.8% of the variance. For secondary crisis reaction, with the control variables the whole model accounts for 39% of the variance in the dependent variable, when it accounted without the control variables for only 0.6% of the variance.

In conclusion, sender and crisis type both have significant effects on brand reputation as well as attitude towards the brand; especially when the variance in the data is controlled for prior brand perception and prior brand involvement. Brand-disclosure of a crisis message led to higher means for brand reputation and attitude towards the brand and a symbolic crisis message had greater negative effects on brand reputation and attitude towards the brand. Hence, H1a and H2a were supported. As there were no significant effects for either secondary crisis communication or secondary crisis reaction H1b and H2b were not supported. There was an interaction effect on attitude towards the brand, such that brand-disclosure of a symbolic crisis message led to higher attitude towards the brand than media-disclosure of a symbolic crisis message. All other dependent variables were non-significant for interaction effects. Therefore, H3a is partially supported and H3b is not supported. See Table 5 for a complete overview of all the ANOVA and ANCOVA results of the factors sender and crisis type.

| Factors | Statistical Method | Dependent Variables | | | |
|------------------------------|--------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|
| | | Brand Reputation | Attitude towards the brand | Secondary Crisis Communication | Secondary Crisis Reaction |
| | | F (p-value); partial η^2 | F (p-value); partial η^2 | F (p-value); partial η^2 | F (p-value); partial η^2 |
| Sender | ANOVA | 8.70 (.003)*; .035 | 1.31 (.254); .005 | .40 (.526); .002 | .89 (.346); .004 |
| | ANCOVA | 13.0 (.000)*; .052 | 3.00 (.047)*; .016 | .15 (.698); .001 | 1.36 (.245); .006 |
| Crisis Type | ANOVA | 4.84 (.029)*; .020 | 1.57 (.212); .007 | 1.43 (.232); .006 | .11 (.742); .000 |
| | ANCOVA | 8.84 (.003)*; .036 | 5.31 (.022)*; .022 | 1.27 (.261); .005 | .93 (.336); .004 |
| Sender x Crisis Type | ANOVA | .197 (.658); .001 | .94 (.334); .004 | .05 (.824); .000 | .43 (.512); .002 |
| | ANCOVA | 1.30 (.255); .005 | 4.95 (.027)*; .020 | .043 (.835); .000 | 2.46 (.118); .010 |
| Sender x Symbolic Brand | ANOVA | .24 (.628); .001 | .11 (.741); .000 | .04 (.843); .000 | .03 (.862); .000 |
| | ANCOVA | .28 (.594); .001 | .16 (.687); .001 | .04 (.844); .000 | .05 (.833); .000 |
| Sender x Funct. Brand | ANOVA | .09 (.758); .000 | .01 (.905); .000 | .11 (.745); .000 | .05 (.820); .000 |
| | ANCOVA | .13 (.723); .001 | .01 (.918); .000 | .03 (.860); .000 | .18 (.671); .001 |
| Crisis Type x Symbolic Brand | ANOVA | 1.82 (.179); .008 | .29 (.586); .001 | .06 (.815); .000 | .39 (.531); .002 |
| | ANCOVA | 1.04 (.309); .004 | .00 (.994); .000 | .09 (.759); .000 | .01 (.927); .000 |
| Crisis Type x Funct. Brand | ANOVA | 1.12 (.286); .005 | .94 (.335); .004 | 3.23 (.074)**; .013 | 4.18 (.042)*; .017 |
| | ANCOVA | .13 (.719); .001 | .002 (.964); .000 | 3.06 (.081)**; .013 | 3.53 (.061)**; .015 |

Table 5 Results of ANOVA and ANCOVA (including prior brand involvement and prior brand perception as covariates) for the factors sender, crisis type and brand type on the dependent variables

(Note: *significant at the 0.05 level; ** marginal significant at the 0.1 level)

4.2 Moderating effects of brand type

To investigate the moderating effects of brand type several multiple linear regressions were calculated. To do so, crisis type and sender were coded as dummy variables and the continuous variables symbolic brand type and functional brand type were centred. Then the products of these variables were used in the linear regression analysis to check for interaction effects between crisis type and brand type and sender and brand type. But no significant effects were found entering brand type as a continuous moderator.

Thus, to further investigate brand type, a median split for symbolic and functional brand type (high vs low) was performed, allowing the factors symbolic brand (high, low) and functional brand type (high, low) to be entered in the analysis as factors. ANOVAs as well as ANCOVAs, with the control variables, were conducted. The ANCOVA did in this case not further the significance of the results; therefore the focus was kept on the ANOVA results. See Table 5 for the results of both analyses.

As the table shows, there were barely any significant interaction effects between the factors on the dependent variables. Yet, the ANOVA yielded a significant interaction effect between crisis type and functional brand type on secondary crisis reaction, $F(1, 239) = 4.18$, $p = .042$, partial $\eta^2 = .017$, such that participants in the functional crisis condition who perceived the brand as highly functional ($M = 2.88$, $SD = .91$) scored lower on secondary crisis communication than participants in the symbolic crisis condition who perceived the brand as low functional ($M = 3.73$, $SD = 1.06$). On the other hand participants in the symbolic crisis condition, who perceived the brand as highly functional ($M = 3.23$, $SD = 1.03$) had similar means on secondary crisis reaction as participants in the functional crisis condition, who perceived the brand as low functional ($M = 3.55$, $SD = .99$). See also Table 6 and Figure 3.

Table 6
Descriptive statistics of secondary crisis communication and secondary crisis reaction as a function of functional brand type and crisis type

| Dependent Variable | Crisis Type | Functional Brand Type | | | | Total | |
|--------------------------------|-------------|-----------------------|--------|-----------|--------|-------|--------|
| | | High Func. | | Low Func. | | M | (SD) |
| | | M | (SD) | M | (SD) | M | (SD) |
| Secondary Crisis Reaction | Functional | 2.88 | (.91) | 3.73 | (1.06) | 3.34 | (1.08) |
| | Symbolic | 3.23 | (1.03) | 3.55 | (.99) | 3.39 | (1.02) |
| | Total | 3.06 | (.99) | 3.65 | (1.02) | 3.37 | (1.04) |
| Secondary Crisis Communication | Functional | 2.28 | (0.94) | 2.43 | (1.08) | 2.36 | (1.04) |
| | Symbolic | 2.68 | (1.10) | 2.35 | (.94) | 2.52 | (1.03) |
| | Total | 2.49 | (1.06) | 2.39 | (1.01) | 2.44 | (1.04) |

Furthermore, the ANOVA revealed a marginal significant interaction effect between crisis type and functional brand type on secondary crisis communication, $F(1, 239) = 3.23$, $p = .074$, $\text{partial } \eta^2 = .013$, such that participants in the symbolic crisis condition, who perceived the brand as highly functional ($M = 2.68$, $SD = 1.10$) scored higher on secondary crisis communication, than participants in the symbolic crisis condition who perceived the brand as low functional ($M = 2.35$, $SD = 0.94$). In contrast, participants in the functional crisis condition, who perceived the brand as highly functional ($M = 2.28$, $SD = 0.94$) scored lower on secondary crisis communication than participants in the functional crisis condition, who perceived the brand as low functional ($M = 2.43$, $SD = 1.08$). See also Table 5 and Figure 4.

Concluding, the results show few significant effects of brand type as a moderator. H4a, H4b and H5 were not supported. The (marginal) significant interaction effects between functional brand type and crisis type on secondary crisis reaction and secondary crisis communication even contradict H4b. For brands perceived as highly functional a functional crisis message leads to less secondary crisis reactions than it does for brands perceived as low functional. Additionally, for brands perceived as highly functional a functional crisis message leads to less secondary crisis communication than a symbolic crisis message.

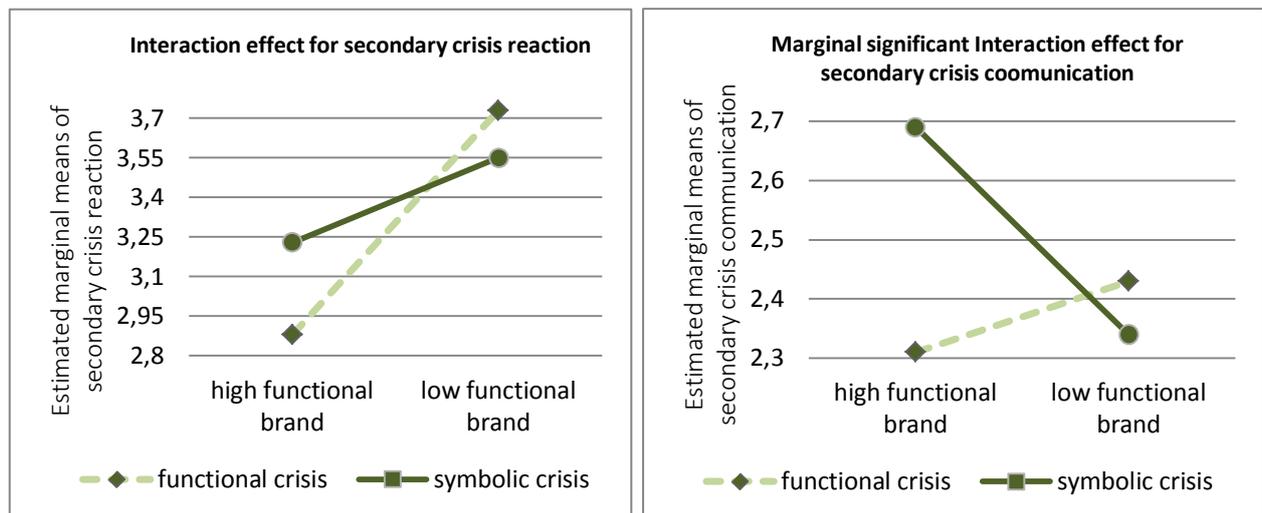


Figure 3 & 4: (Marginal) significant interaction effects of functional brand type and crisis type on secondary crisis communication and secondary crisis reaction (ANOVA)

4.3 Main and interaction effects of culture

Due to the fact that the respondents were divided between being from Germany and the Netherlands, it was also possible to investigate the effects culture has in crisis communication via social media. The effect of sender (brand, media), crisis type (functional, symbolic) and culture (German, Dutch) on all dependent variables was examined using two-way ANOVAs for independent groups. Descriptive statistics for the dependent variables as a function of the levels of the three factors are shown in Table 7, 8, 9 and 10 in appendix D. This results section will focus on the main effects of county of origin and the possible interaction effects with the other two factors sender and crisis type. See Table 11 for a complete overview of the ANOVA results.

There was a significant main effect of culture on brand reputation, $F(1, 235) = 11.69$, $p = .001$, partial $\eta^2 = .047$, such that participants from the Netherlands ($M = 4.57$, $SD = 0.89$) scored higher on brand reputation than participants from Germany ($M = 4.18$, $SD = 0.93$). Also, there was a significant main effect of culture on attitude towards the brand, $F(1, 235) = 10.00$, $p = .002$, partial $\eta^2 = .041$, such that participants from the Netherlands ($M = 4.45$, $SD = 1.04$) scored higher on attitude towards the brand than participants from Germany ($M = 4.03$, $SD = 1.02$). A marginal significant main effect of culture was found for secondary crisis communication, $F(1, 235) = 2.99$, $p = .085$, partial $\eta^2 = .013$, such that participants from Germany ($M = 2.54$, $SD = 1.07$) scored higher on secondary crisis communication than participants from the Netherlands ($M = 2.31$, $SD = .99$). Lastly, there was another significant main effect of culture on secondary crisis reaction, $F(1, 235) = 4.56$, $p = .034$, partial $\eta^2 = .019$, such that participants from Germany ($M = 3.49$, $SD = 1.05$) scored higher on secondary crisis reaction than participants from the Netherlands ($M = 3.28$, $SD = 1.03$).

| Factors | Dependent Variables | | | |
|---------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|
| | Brand Reputation | Attitude towards the brand | Secondary Crisis Communication | Secondary Crisis Reaction |
| | F (p-value); partial η^2 | F (p-value); partial η^2 | F (p-value); partial η^2 | F (p-value); partial η^2 |
| Country | 11.7 (.001)*; .047 | 10.0 (.002)*; .041 | 2.99 (.085)**; .013 | 4.56 (.034)*; .019 |
| Crisis Type x Country | .03 (.868); .000 | .11 (.745); .000 | .77 (.383); .003 | .77 (.382); .003 |
| Sender x Country | .04 (.852); .000 | .04 (.839); .000 | .04 (.834); .000 | .03 (.870); .000 |
| Crisis x Sender x Country | 1.65 (.201); .007 | 2.83 (.094)**; .012 | .73 (.395); .003 | 6.59 (.011)*; .027 |

Table 11 Results of ANOVA for the factors sender, crisis type and country of origin on the dependent variables (Note: *significant at the 0.05 level; ** marginal significant at the 0.1 level)

Furthermore, there was a significant three-way-interaction effect between the three factors crisis type, sender and culture on secondary crisis reaction, $F(1, 235) = 6.59, p = .011$, partial $\eta^2 = .027$, such that participants from the Netherlands in the media plus functional crisis condition ($M = 3.47, SD = 1.06$) scored higher on secondary crisis communication, than participants in the media plus symbolic crisis condition ($M = 3.09, SD = .98$), while participants in the brand plus functional crisis condition ($M = 3.01, SD = .99$) scored lower on secondary crisis communication, than participants in the brand plus symbolic crisis condition ($M = 3.23, SD = 1.03$). For participants from Germany, this effect was the opposite. German participants in the media plus functional crisis condition ($M = 3.27, SD = .97$) scored lower on secondary crisis communication, than participants in the media plus symbolic crisis condition ($M = 3.81, SD = 1.01$), while participants in the brand plus functional crisis condition ($M = 3.54, SD = 1.21$) scored higher on secondary crisis communication, than participants in the brand plus symbolic crisis condition ($M = 3.31, SD = .95$). See Figure 5 and 6.

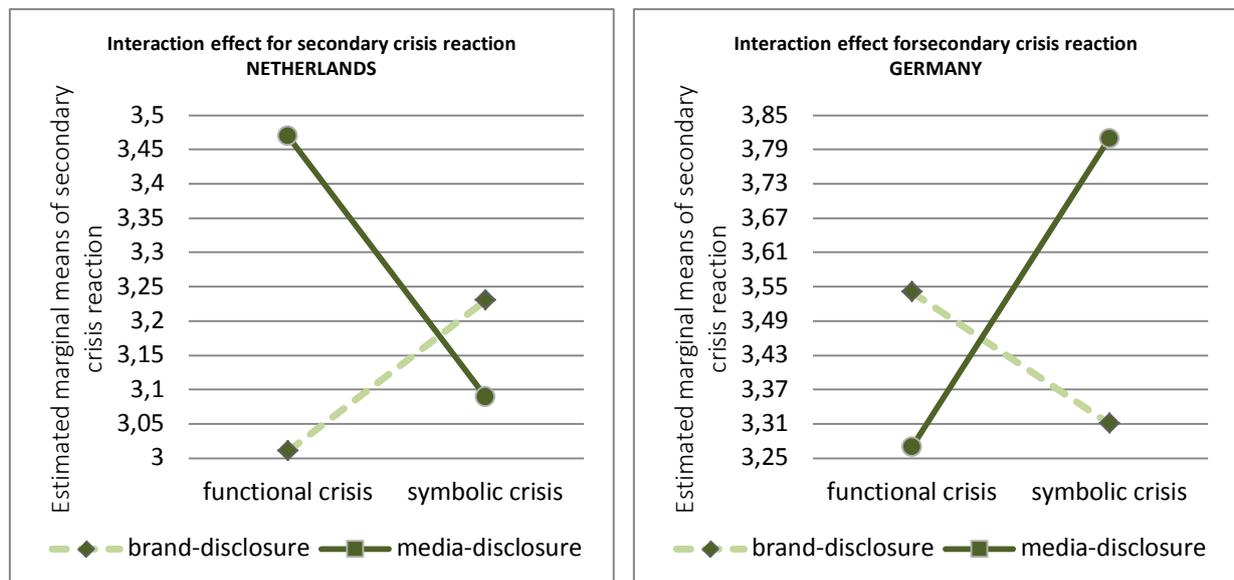


Figure 5 & 6 Three-way interaction effect of sender, crisis type and country of origin on secondary crisis reaction

Lastly, there was a marginal significant three-way-interaction effect between the three factors crisis type, sender and culture on attitude towards the brand, $F(1, 235) = 2.83, p = .094$, partial $\eta^2 = .012$, such that participants from the Netherlands in the brand plus functional crisis condition ($M = 4.69, SD = .75$) scored higher on attitude towards the brand,

than participants in the brand plus symbolic crisis condition ($M= 4.34, SD= 1.24$), while participants in the media plus functional crisis condition ($M= 4.43, SD= .97$) and media plus symbolic crisis condition ($M= 4.33, SD= 1.24$) had similar scores. For participants from Germany this effect differed. German participants in the brand plus functional crisis condition ($M= 4.03, SD= 1.19$) scored lower on attitude towards the brand, than participants in the brand plus symbolic crisis condition ($M= 4.21, SD= .84$), while participants in the media plus functional crisis condition ($M= 4.16, SD= .97$) scored higher on attitude towards the brand, than participants in the media plus symbolic crisis condition ($M= 3.71, SD= .99$). See Figure 7 and 8.

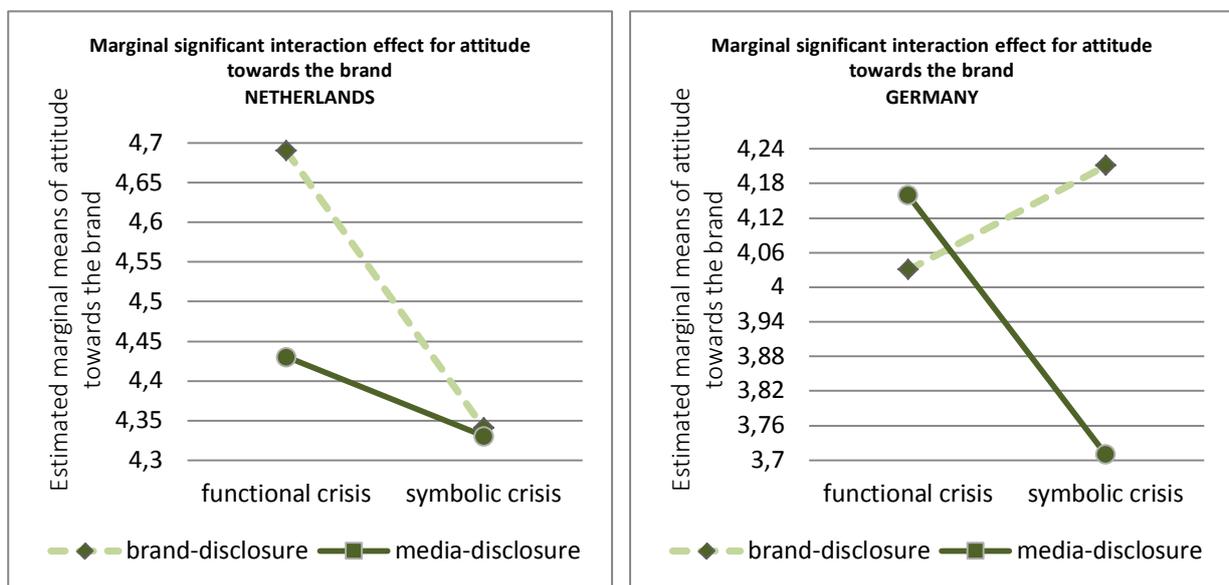


Figure 7 & 8 Marginal significant three-way interaction effect of sender, crisis type and country of origin on attitude towards the brand

Additionally to looking at the main and interaction effects of culture, the relationships between culture and the control variables, prior brand perception and prior brand involvement, were investigated. Independent sample *t*-tests indicated that the means of prior brand perception differed significantly, $t(241) = -3.54, p < .001$, for participants from the Netherlands ($M= 5.17, SD= .97$) and participants from Germany ($M= 4.66, SD= 1.29$). Also the means of prior brand involvement differed significantly, $t(241) = -3.76, p < .001$, for participants from the Netherlands ($M= 4.21, SD= 1.37$) and participants from Germany ($M= 3.52, SD= 1.48$). Thus prior brand perception and prior brand involvement are not independent from culture and therefore cannot be used as control variables in the ANOVA model when it includes culture.

To examine whether the effects of prior brand perception and prior brand involvement on the dependent variables differed between the two countries, another test for the homogeneity of regression slopes was conducted. Customized ANCOVA models, entering culture, prior brand perception and prior brand involvement showed no significant interaction effects between these variables on the dependent variables (see Table 12). This means that the slopes of prior brand perception and prior brand involvement are parallel across the two groups of culture, indicating that their effect directions on the dependent variables are similar.

Since culture, prior brand perception and prior brand involvement are not independent from each other, while the slopes of the control variables are parallel across the groups of culture, it can be concluded that these variables share explanation for the variance in the dependent variables brand reputation, attitude towards the brand, secondary crisis communication and secondary crisis reaction (Miller & Chapman, 2001).

| Factors | Dependent Variables | | | |
|--|---------------------|----------------------------|--------------------------------|---------------------------|
| | Brand Reputation | Attitude towards the brand | Secondary Crisis Communication | Secondary Crisis Reaction |
| | F (p-value) | F (p-value) | F (p-value) | F (p-value) |
| Country x prior brand perception | .92 (.340) | .06 (.808) | 1.48 (.226) | 1.96 (.163) |
| Country x prior brand involvement | 1.46 (.268) | .06 (.815) | 2.32 (.129) | 3.64 (.058) |
| Country x prior brand involvement x prior brand perception | 1.04 (.356) | .61 (.546) | 1.66 (.193) | 1.83 (.162) |

Table 12 Results for testing the assumption of homogeneity of regression slopes by conducting a customized ANCOVA model entering country of origin and the control variables in the model and investigating their interactions.

5 Discussion

5.1 General discussion

The present experimental study extended research on crisis communication via social media, as it investigated the effects of sender and crisis type and the moderating effects of brand type on the dependent variables brand reputation, attitude towards the brand, secondary crisis communication and secondary crisis reaction. Furthermore, the study took the chance to investigate the effects of culture in crisis communication via social media, as the study sample was split between Dutch and German participants. This discussion section will first focus on the primary interest of this study, namely the effects of sender, crisis type and brand type in crisis communication via social media, and secondly discuss the effects of culture.

For the dependent variables, brand reputation and attitude towards the brand, main effects of both factors, sender and crisis type, were found. No main effects were found for secondary crisis communication and secondary crisis reaction. Controlling for prior brand involvement and prior brand perception increased the explained variance of the model and made the results more robust. Moderating effects of brand type were non-significant for brand reputation and attitude towards the brand, significant for secondary crisis reaction and could not be conclusively demonstrated for secondary crisis communication.

Brand-disclosure is an effective tool in crisis communication via social media. By releasing the crisis message via their own social media channels, companies can reduce the negative effects of a crisis on their reputation and the attitude towards their brand. As Fennis and Stroebe (2004) demonstrated this effect for traditional media communication, it also holds true for social media communication. This is especially important as it assures corporations to make more use of social media in a crisis situation.

Furthermore, a symbolic crisis impacts much more negatively on brand reputation and the attitude towards the brand than a functional crisis. Consumers judge brands harsher, if a crisis is related to values and ethical misconduct, compared to when it is related to product failure and product harm. Ethical behaviour of brands has become ever more important for consumer judgment over the past years (Pecoraro & Ussitalo, 2014; Papaoikonomou et al., 2014). There is a trend towards the 'ethical consumer', especially in western cultures and

among higher educated consumers (Pecoraro & Ussitalo, 2014; Littrell & Dickson, 1999). The findings of this study also illustrate this, since they show that a symbolic crisis leads to a greater negative impact on brand reputation and attitude towards the brand. Considering how fragile these assets are, it is important for brands to reflect on the type of crisis they are experiencing. Particularly considering that the change in attitude towards the brand is almost the same for functional crises if the message is disclosed via the brand or the media, while it is much more harmful for the brand during symbolic crises, if the crisis message is released via the media. Hence, the strategy of brand-disclosure via social media can be generally employed, but should certainly be used for crises, which threaten the values and ethical standards of brands.

Interestingly neither sender nor crisis type had an effect on whether people are more likely to spread negative (electronic) word-of-mouth about the corporation and engage in negative behaviour towards the corporation. Hence, even when consumers changed their attitude towards the brand after a crisis, there is a gap between attitude and behavioural change. Moreover, in a social media environment, one would have assumed that the willingness to share messages would be higher, but results show that the likelihood for all sender and crisis conditions were in general very low. This leads to the assumption that people are not as likely to spread and act on crisis information, which they have received only via social media. Even as participants perceived the message from the traditional media sender as more credible, the likelihood to engage in secondary crisis communication and crisis reaction did not increase. This puts the findings from Utz et al. (2013) in a slightly different light. They had demonstrated that people talk more about news from traditional media, because they perceived them as more credible. The findings of the present study suggest that this increase in negative behaviour towards the corporation is not due to the fact of greater credibility of the traditional media channel, but rather because the message was in the format of a standard newspaper article. Therefore, it seems that people are less willing to share information about a crisis and engage in negative behaviour towards a brand if they only receive the crisis message via a social media channel, regardless of who sends the message and what type of crisis it portrays.

The present study found one significant moderating effect of functional brand type and crisis type on secondary crisis reaction and a marginal significant moderating effect of

functional brand type and crisis type on secondary crisis communication. Interestingly, these (marginal) significant effects are contradicting the assumption that for functional brands a functional crisis message leads to more secondary crisis communication and secondary crisis reaction. The results show a trend that for functional brands a symbolic crisis message leads to more (electronic) word-of-mouth and negative behaviour towards the brand. And especially for brands perceived as low functional, a functional crisis message leads to negative behaviour towards the brand, such as boycotting and negative (electronic) word-of-mouth. These results could be attributed to the fact that people usually try to avoid information and actions which would contradict their previous beliefs, as the cognitive dissonance theory suggests (Festinger, 1957). If consumers view a brand as highly functional, a functional crisis message would contradict their previous beliefs, suggesting that they would refrain from any actions which would increase this dissonance, like sharing the functional crisis message or engaging in negative behaviour towards the brand. Hence, they would try to not acknowledge a functional crisis message. But if it is a symbolic crisis message or they perceive the brand as low functional, this dissonance between their beliefs about the brand and the crisis message would not occur. Thus they would share the crisis message more freely and more actively engage in negative behaviour. Therefore, cognitive dissonance theory could explain the (marginal) significant interaction effects found for functional brand type and functional crisis type on secondary crisis communication and secondary crisis reaction.

Opposed to previous findings, neither the effects of sender nor crisis type on brand reputation or attitude towards the brand were significantly influenced by the different perceptions of brand type consumers had. These non-significant effects could be due to the study set-up. The search-and-alignment model predicts that consumers in case of crisis recall prior knowledge they have about the brand and then judge the crisis dependent on its match or mismatch with their previous brand evaluation (Pham & Muthukrishnan, 2002). As this study used a real-life brand, which participants were largely very familiar with, prior knowledge of the brand was given. But it might be that, for the majority of participants, the brand scored too high on both functional and symbolic aspects so that an explicit distinction between a match or a mismatch with the perceived brand type and crisis type was not possible. This would have led to non-significant results of brand type as a moderator of the

effects of crisis type. The same explanation holds true for the non-significant effects of brand type on the effects of sender. If the brand is for the majority of participants perceived as high in symbolic as well as functional aspects, the emotional attachment, which should set the symbolic brand type condition apart, is also included in the functional brand type condition, thus rendering its effect less significant.

Since participants were divided between being Dutch and German, there was also the possibility to investigate the effects culture has in crisis communication via social media. There were main effects of culture on the dependent variables, brand reputation, attitude towards the brand and secondary crisis reaction as well as a marginal significant main effect on secondary crisis communication. Furthermore there was a significant three-way interaction between sender, crisis type and culture on secondary crisis reaction and a marginal significant three-way interaction between the three factors on attitude towards the brand.

The effects on brand reputation and attitude towards the brand indicate that the negative impacts of a crisis message on a brand are less for Dutch consumers than they are for German consumers. The effects on secondary crisis reaction and secondary crisis communication show that Dutch consumers are less likely to engage in secondary crisis reaction and communication, while Germans are more likely to boycott and spread negative (electronic) word-of-mouth, when exposed to a brand crisis. Cultural differences in crisis communication and in (electronic) word-of-mouth have been investigated mostly using Hofstede's cultural dimensions (e.g. Pookulangara & Koesler, 2011; Haruta & Hallahan, 2003; Lam et al., 2009). According to research by Hofstede, the greatest difference between the Dutch and the German culture is their score on the dimension of masculinity vs femininity (2001).

“Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with quality of life” (Arenas-Gaitán et al., 2011, p. 1764).

According to Hofstede, Germany has a strong masculine culture whereas the Netherlands has a feminine culture (Hofstede, 2001). This difference can explain why a crisis message has different effects in these countries. Dutch people strive for consensus and try to solve conflicts by discussion, compromise and negotiation. Germans on the other hand are driven by achievement and success; conflicts are solved by who has the best and strongest argumentation (Hofstede Center, n.d.). Hence, German consumers judge a brand possibly rather quickly when exposed to a crisis message, while Dutch consumers take more consideration and want more information before evaluating the crisis. This explains why the crisis affected brand reputation and attitude towards the brand less for Dutch participants. The same reasoning holds true for the reactions after the crisis. Germans judge quickly and then act accordingly, thus being more likely to boycott the brand and spread negative (electronic) word-of-mouth. Dutch are less inclined to act so quickly, since they rather strive for consensus and want to resolve the conflict rather than enhancing it by boycotting the brand and encouraging others to do so too.

The three-way interaction effect between sender, crisis type and culture indicates that Dutch consumers are most likely to engage in secondary crisis reactions when a functional crisis has been disclosed by the media and the least when it has been disclosed by the brand. Symbolic crises, regardless of whether disclosed by brand or media, have a low likelihood of leading to a boycott of the brand. In Germany this effect is opposite. A symbolic crisis disclosed by the media has the highest likelihood to lead to a boycott of the brand, while functional crises disclosed by the media have the least. Therefore, the effect in Germany actually follows the hypothesis, that a functional crisis message disclosed by the media leads to less secondary crisis reaction, because the need for information has been fulfilled by the media (Dutta & Pullig, 2011). But in the Netherlands consumers view it as more serious if the brand itself does not disclose the functional crisis. Because consumers expect for functional crises more information than they do for symbolic crises (Dutta & Pullig, 2011), Dutch consumers might feel the right to be informed by the brand. This can be grounded in the feminine culture, which values involvement and solidarity (Hofstede Center, n.d.). A brand, which does not engage in dialogue when confronted with a functional crisis, does not commit to these cultural values and is therefore judged more critically. The marginal significant interaction effect on attitude towards the brand shows the same trend of effect.

Concluding, culture has an effect in crisis communication via social media. The difference between Germany and the Netherlands, mostly based on the difference in Hofstede's dimension of masculinity vs femininity, has caused significant effects on all dependent variables. Also the interaction between the factors sender, crisis type and culture yielded significant effects. Nevertheless, the main results of this study are therefore not negated. Since culture shared variance in the dependent variables with the control variables prior brand perception and prior brand involvement, including the control variables in the main analysis also reduced the error variance caused by culture. It seems that the perception of and the involvement with a brand is intrinsically linked with the culture of consumers.

To sum up, the present study demonstrated the positive effectiveness of brand-disclosure in crisis communication via social media, especially if the crisis is related to the values and ethics of a brand. Furthermore, this study questions the general assumption that social media leads to greater (electronic) word-of-mouth. It seems that especially messages which are only received via social media lead to low (electronic) word-of-mouth; which is also not influenced by either the sender or the credibility of the message. The results towards brand type are mostly inconclusive. But they indicate that for functional brands symbolic crises lead to the most antagonistic behaviour towards brands. Overall, brand type needs to be more thoroughly investigated in the setting of crisis communication via social media. Lastly, masculine and feminine cultures react differently to crisis communication via social media. Dutch consumers, based on their feminine culture, expect more dialogue and are not as quick to judge brands on a singular crisis message, whereas Germans, based on their masculine culture, have a stronger negative reaction towards the brand after being exposed to a crisis message. The overall tendency to spread negative (electronic) word-of-mouth and to boycott the brand is for both cultures low, but if compared, Germans tend to engage more in it. Furthermore, it is more advantageous for brands to disclose a functional crisis message themselves in the Netherlands, while for Germany it should be disclosed via the media. In turn, a symbolic crisis message should be disclosed by the brand in Germany, in the Netherlands the difference between brand- and media-disclosure is not so severe.

5.2 Managerial implications

Strategic online communication is a growing field, not only for researchers but also for communication professionals and managers. The present study contributes to the understanding of crisis communication via social media not only on a theoretical level, but also on a practical level.

Firstly, communication professionals should not underestimate the power social media has in crisis communication (Becker, 2008). It can be a medium, if properly used, which empowers companies in a crisis situation. Brand-disclosure of the crisis message is a viable and favourable strategy. Since brands control their own social media channels, they can determine when, in what format and with what voice the crisis message is disclosed. Thus, the dependency on the media decreases. Especially for symbolic crises this can greatly lessen the negative effects the crisis has. Therefore, brands should strategically and on a long-term basis engage in social media communication. This way they broaden their reach on the social web, engage consumers, especially those, who are invested in the brand, and establish an online reputation. This gives brands an advantage, when they are experiencing a crisis. Then they can use their established social media channels to disclose the crisis message themselves, also to a more favourable audience.

Secondly, communication professionals should not fear that a crisis message, which is released via social media, leads to more sharing of that message. The general assumption that because messages on social media are quick and easy to share, they are also more likely to be shared was not supported in this study. Hence, consumers do not share a crisis message more frequently just because it was released on the social web. This finding should encourage communication professional to integrate social media more in their crisis communication strategy.

Thirdly, functional positioned brands have to be weary of crises related to their values and ethics. Consumers demonstrated that they are more likely to spread negative word-of-mouth and to boycott functional brands, if they are involved in a symbolic crisis. Thus functional orientated brands should engage in open and quick dialogue, when involved in a symbolic crisis in order to retain customers and lessen the blow back.

Lastly, culture is an important factor in crisis communication. Especially global brands should be aware, that in different cultures different approaches of crisis communication are

effective. Masculine cultures, such as the German, judge crisis messages more quickly and harshly, while feminine cultures, such as the Dutch, expect more dialogue and an approach to find consensus in a conflict. Also, disclosing a functional crisis message via the media is viable for masculine cultures, but for feminine cultures it should be disclosed by the brand itself. In turn, symbolic crisis messages should be disclosed by the brand itself in masculine cultures, but for feminine cultures the difference between media- and brand-disclosure is not as significant. Overall, global brands should be aware of these cultural differences. They should inform themselves about the different expectations cultures have in crisis communication, in order to make the right choices for their brand communication.

Concluding, social media is a favourable medium for strategic crisis communication and should be employed by corporations in their crisis response plans. It offers the unique possibility for brands to speak with their own voice and to have a medium to disclose a crisis message themselves. Since then brands are not dependent on a third party, like the media, to disclose their crisis message, they can strategically adapt it to all the factors influencing crisis communication, like the crisis type, the brand type and cultural differences. This way the negative effects of crises on brands can be significantly reduced.

5.3 Limitations and future research

Finally, strength and limitations of the present research are noted and possible future research areas are stated.

A strength of this experimental study is that for each crisis type two different crisis scenarios were used. Crisis type is therefore less likely to be confounded by other crisis characteristics, like crisis severity. Additionally, that effects were significant with exposing participants to just one crisis message shows the strength a crisis message can have and demonstrates the importance of strategic crisis communication. Also, this study used a real-life brand, which participants were highly familiar with, thus making the results more genuine. But utilizing this real-life brand is also a limitation, as participants already have strong perceptions about the brand. This was partially counteracted by including prior brand perception and prior brand involvement as control variables. But as the results for brand type show, including just one real-life brand might not have been sufficient. If more brands, with different loadings on functional and symbolic brand aspects, were used, brand

type might have shown more significant moderation effects. Furthermore, this study focused only on corporate crises. Other types of crises might be affected differently by the factors used in this study, thus the results cannot be extended to political or social crises. Lastly, the participants of the study were not truly homogenous as they belonged to different cultures, and culture demonstrated to have significant effects on the dependent variables. But since culture and the control variables shared variance in the dependent variables, it was possible to reduce the error variance caused by culture by controlling for prior brand perception and prior brand involvement.

Future research should focus on extending the findings of this study to other crisis scenarios, e.g. in a political or social setting. Moreover, brand type as a moderator should be investigated more thoroughly, e.g. by using more distinct real-life brands. Furthermore the effect of culture in crisis communication should be further examined; also taking cultures into consideration which differ on different aspects than masculinity and femininity. Lastly, the finding that releasing a crisis message via social media does not lead to an increase in secondary crisis communication and secondary crisis communication should be further investigated, since it seems most contradictory to current assumptions of social media communication.

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Appendices

Appendix A: Measurement items

| | |
|---|---|
| Brand Reputation ($\alpha = 0,87$) | |
| BR1 | The brand XXX is basically honest. |
| BR2 | The brand XXX is concerned with the well-being of its publics. |
| BR3 | I do trust the brand XXX to tell the truth about the incident. |
| BR4 | I would prefer to have nothing to do with brand XXX. (Recode) |
| BR5 | Under most circumstances, I would NOT be likely to believe what brand XXX says. (Recode) |
| BR6 | The brand XXX is basically dishonest. (Recode) |
| BR7 | I do not trust brand XXX to tell the truth about the incident. (Recode) |
| BR8 | I would buy a product from brand XXX. |
| BR9 | The brand XXX is NOT concerned with the well-being of its publics. (Recode) |
| BR10 | The brand XXX is basically dishonest. (Recode) |
| Attitude towards the brand ($\alpha = 0,92$) | |
| BA1 | Bad / Good |
| BA2 | Dislike / Like very much |
| BA3 | Unfavourable / Favourable |
| BA4 | Unsatisfactory / Satisfactory |
| BA5 | Negative / Positive |
| Secondary Crisis Communication ($\alpha = 0,77$) | |
| SCC1 | I would like this Facebook post. (Like Button). |
| SCC 2 | I would share this Facebook post with other people (re-posting it). |
| SCC 3 | I would tell friends about the incident. |
| SCC 4 | I would leave a reaction / comment on this Facebook post. |
| SCC 5 | I would say negative things about brand XXX and the products of the brand XXX. |
| Secondary Crisis Reaction ($\alpha = 0,77$) | |
| SCR1 | I would encourage friends or relatives NOT to buy products from brand XXX. |
| SCR 2 | I would recommend brand XXX products to someone who asked my advice. (Recode) |
| SCR 3 | I will continue to buy products from brand XXX in the future. (Recode) |
| SCR 4 | The likelihood of me buying products from brand XXX again is high. (Recode) |
| SCR 5 | Because of the incident, I will switch to another brand. |
| Prior Brand Involvement ($\alpha = 0,90$) | |
| BI1 | I attach great importance to brand XXX. |
| BI2 | One can say that brand XXX interests me a lot. |
| BI3 | Brand XXX is a topic which leaves me totally indifferent. (Recode) |
| BI4 | Brand XXX does not matter to me. (Recode) |
| Article Credibility ($\alpha = 0,90$) | |
| AC1 | Very untrustworthy / Very trustworthy |
| AC2 | Very unreliable / Very reliable |
| AC3 | Very non-credible / Very credible |
| Crisis Type ($\alpha = 0,94$) | |
| CT1 | Crisis: Is related to the quality of brand X' products - Is related to the work ethics of brand X |
| CT2 | Crisis: is related to the workmanship of brand XXX product - Is related to the ethical values of brand XX |
| CT3 | Crisis: shows a product related issue - shows an ethical issue |
| CT4 | Crisis: shows failure in the production process of brand XXX - Shows failure of the moral philosophy of brand XXX |

| Symbolic Brand Type ($\alpha = 0,86$) | |
|--|-----------------------------|
| SBT1 | not fun - fun |
| SBT2 | dull - exciting |
| SBT3 | not delightful - delightful |
| SBT4 | not thrilling - thrilling |
| SBT5 | unenjoyable - enjoyable |
| Functional Brand Type ($\alpha = 0,75$) | |
| FBT1 | effective - effective |
| FBT2 | not helpful - helpful |
| FBT3 | not functional - functional |
| FBT4 | not necessary - necessary |
| FBT5 | not practical - practical |

Appendix B: Stimulus material

Scenarios

Functional Crisis

H&M: In a recent study commissioned by Greenpeace International, nonylphenol ethoxylates (NPEs) were found in black fabric used in several of our clothing products. This chemical breaks down into toxic nonylphenol (NP), which has hormone-disrupting properties that persist over time and can be hazardous even at low levels. Greenpeace used an independent laboratory to test for the presence of NPEs. The black fabric tested positive for NPEs higher than the regulated limit of detection (1 milligram NPEs/kilogram material). Apparently, our Asian distributor of the black fabric had used NPEs in the dyeing process. We have therefore discontinued any production with this fabric and have removed any products using the fabric from our stores. We will be further investigating this incident.

NYT: In a recent study commissioned by Greenpeace International, nonylphenol ethoxylates (NPEs) were found in black fabric used in several of H&M's clothing products. This chemical breaks down into toxic nonylphenol (NP), which has hormone-disrupting properties that persist over time and can be hazardous even at low levels. Greenpeace used an independent laboratory to test for the presence of NPEs. The black fabric tested positive for NPEs higher than the regulated limit of detection (1 milligram NPEs/kilogram material). Apparently, H&M's Asian distributor of the black fabric had used NPEs in the dyeing process. H&M has therefore discontinued any production with this fabric and has removed any products using the fabric from their stores. According to an H&M press statement the incident will be further investigated.

H&M: At the beginning of December, our stores and ecommerce site received several new products made from a black, shining fabric. The materials used in the production of the fabric were the same we traditionally use, but apparently the fiber strength was not, which resulted in an increased thinness and tearability. Clothing items made from the fabric seem to tear at the seams fast and become quickly see-through, especially after a couple of washings, making the items unwearable. After receiving much criticism from you, our customers, we are now investigating this further. So far, we have discontinued any production with this fabric and have removed any products using the fabric from our stores. We are working with our supplier and other manufacturers to replace this fabric and replenish the affected core items as fast as we can.

NYT: At the beginning of December, H&M stores and their ecommerce site sold several new products made from a black, shining fabric. Apparently, the materials used in the production of the fabric were the same H&M traditionally uses, but the fiber strength was not, which resulted in an increased thinness and tearability. Clothing items made from the fabric seem to tear at the seams fast and become quickly see-through, especially after a couple of washings, making the items unwearable. After receiving much criticism from their customers H&M is now investigating this further. So far, they have discontinued any production with the fabric and have removed any products using the fabric from their stores. H&M states, that they are working with supplier other manufacturers to replace this fabric and replenish the affected core items.

Symbolic Crisis

H&M: We have just learned that workers from one of our factories in Indonesia claim that they are being physically and mentally abused. At the Sukabumi plant, about 60 miles from Jakarta, allegedly supervisors frequently throw shoes at workers, slap them in the face, kick them and call them names. One worker at the Taiwanese-operated Pou Chen plant in Sukabumi said she was kicked by a supervisor last month after making a mistake while cutting rubber for shoe soles. The woman spoke out on condition of anonymity out of fear of reprisals. Target margins at our factories are high and apparently the supervisors at this factory misused their power to reach those margins by any means necessary. We will be investigating this incident and stop any collaboration with the factory until further notice.

NYT: Indonesian news reports state that workers from one of H&M's factories in Indonesia claim that they are being physically and mentally abused. At the Sukabumi plant, about 60 miles from Jakarta, allegedly supervisors frequently throw shoes at workers, slap them in the face, kick

them and call them names. One worker at the Taiwanese-operated Pou Chen plant in Sukabumi said she was kicked by a supervisor last month after making a mistake while cutting rubber for shoe soles. The woman spoke out on condition of anonymity out of fear of reprisals. Target margins at H&M's factories are high and apparently the supervisors at this factory misused their power to reach those margins by any means necessary. According to an H&M press statement the incident will be investigated and any collaboration with the factory will be stopped until further notice.

H&M: We have become aware that in several of our Czech stores managers have been spying for months on employees. Apparently, they have been hiring detectives to investigate workers, both on the job, on cigarette and coffee breaks -- and even on the toilet. The observation practices were routine, the reports allege: A detective would install between five and 10 miniature cameras in the store, telling the employees it was an anti-theft measure, and then use the technology to observe their behavior. Transcripts of the observations also get into employees' private lives and appearances. Allegedly, female employees were prohibited from going to the bathroom during work hours; unless they had their period, which they were to indicate outwardly by wearing a headband. Although we cannot deny the existence of these actions, we will be investigating further.

NYT: According to Czech news reports, H&M store managers have been spying for months on employees in several Czech stores. Apparently, they have been hiring detectives to investigate workers, both on the job, on cigarette and coffee breaks -- and even on the toilet. The observation practices were routine, the reports allege: A detective would install between five and 10 miniature cameras in the store, telling the employees it was an anti-theft measure, and then use the technology to observe their behavior. Transcripts of the observations also get into employees' private lives and appearances. Allegedly, female employees were prohibited from going to the bathroom during work hours; unless they had their period, which they were to indicate outwardly by wearing a headband. H&M has not denied the existence of these actions yet and stated that they will be investigating further.

Example Facebook posts

The image shows a screenshot of the H&M Facebook page. At the top, there is a navigation bar with the Facebook logo, a search bar, and links for Home, a profile icon, a chat icon, and a globe icon. Below the navigation bar is a large banner image featuring three models: a man in a black shirt with a white deer head graphic, a woman in a red dress holding a gold globe, and another woman in a red dress holding a gold perfume bottle. The H&M logo is prominently displayed on the left side of the banner. Below the banner, the page name 'H&M Clothing Store' is shown, along with the text 'H und M was merged with this page'. There are buttons for 'Like', '+ Follow', 'Share', and a menu icon.

The main content area is divided into two columns. On the left, there is a 'PEOPLE' section showing '21,331,710 likes' and '241,732 visits'. Below this, there are several small profile pictures and a link to 'Invite your friends to like this Page'. The 'ABOUT' section follows, containing the tagline 'Fashion and quality at the best price.', the website URL 'http://www.hm.com/', and a 'Suggest Edits' option. The 'APPS' section is partially visible at the bottom.

The right column features a post from H&M, timestamped 'about an hour ago'. The post text reads: 'We have just learned that workers from one of our factories in Indonesia claim that they are being physically and mentally abused. At the Sukabumi plant, about 60 miles from Jakarta, allegedly supervisors frequently throw shoes at workers, slap them in the face, kick them and call them names. One worker at the Taiwanese-operated Pou Chen plant in Sukabumi said she was kicked by a supervisor last month after making a mistake while cutting rubber for shoe soles. The woman spoke out on condition of anonymity out of fear of reprisals. Target margins at our factories are high and apparently the supervisors at this factory misused their power to reach those margins by any means necessary. We will be investigating this incident and stop any collaboration with the factory until further notice.' Below the text are buttons for 'Like', 'Comment', and 'Share', along with a share icon and the text '176 Shares'. At the bottom of the post, it says '13,758 people like this.' and 'Top Comments'. A comment input field with a small profile picture and the text 'Write a comment...' is visible.

The screenshot displays the Facebook profile of The New York Times. The page header includes the Facebook logo, a search bar, and navigation links for Home, a notification bell, a speech bubble, a globe, and a menu icon. The profile picture is the Times logo, and the cover photo shows a group of people in a dimly lit room, possibly a newsroom or office. The page name is 'The New York Times Newspaper' with a verified badge. Below the name are buttons for 'Like', '+ Follow', 'Message', and a three-dot menu. Navigation tabs for 'Timeline', 'About', 'Photos', 'Likes', and 'More' are visible.

The 'PEOPLE' section shows 8,801,165 likes and a row of profile pictures with the text 'Invite your friends to like this Page'. The 'ABOUT' section contains a welcome message: 'Welcome to The New York Times on Facebook - a hub for conversation about news and ideas. Like our page and connect with Times journalists and readers.' and the website URL 'http://www.nytimes.com/'. There is also a 'Suggest Edits' link.

The main post is from 'The New York Times' and is dated '20 hours ago'. The text of the post reads: 'According to Czech news reports, H&M store managers have been spying for months on employees in several Czech stores. Apparently, they have been hiring detectives to investigate workers, both on the job, on cigarette and coffee breaks - and even on the toilet. The observation practices were routine, the reports allege: A detective would install between five and 10 miniature cameras in the store, telling the employees it was an anti-theft measure, and then use the technology to observe their behavior. Transcripts of the observations also get into employees' private lives and appearances. Allegedly, female employees were prohibited from going to the bathroom during work hours; unless they had their period, which they were to indicate outwardly by wearing a headband. H&M has not denied the existence of these actions yet and stated that they will be investigating further.'

Below the text are interaction options: 'Like - Comment - Share', '176 Shares', and '13,758 people like this.' There is also a 'Top Comments' link. At the bottom of the post is a comment box with the placeholder text 'Write a comment...'.

On the right side of the page, there is a 'Create Page' button and a 'Recent' list of years from 2014 down to 1967.

Appendix C: Questionnaire

Study - Crisis Comm via Social Media

Welcome to the survey! Please choose your language:

Welkom bij de enquête! Kies hier uw taal a.u.b.:

Willkommen zur Umfrage! Bitte wählen Sie Ihre Sprache:

- English
- Nederlands
- Deutsch

Dear participant, Thank you very much for participating in this survey. In the first part of the survey we ask you to state your demographics and in the second we will ask you a few questions concerning a brand and its social media appearance. There are no wrong or right answers, we are just interested in your perception. All the data gathered in this survey will be used for research purposes only. This survey is completely anonymous. If you should have to interrupt your session, your browser will save your progress and you can return to your stopping point via the survey link for one week. This survey will take about 15-20 minutes. With the button "<<" and ">>" you can navigate through the survey. The questions are numbered so that you can see your progress throughout the questionnaire.

How old are you? Question 1 of 19
in years

What is your country of origin? Question 2 of 19

- The Netherlands
- Germany
- Other (please specify) _____

What is your gender? Question 3 of 19

- Male
- Female

What is your highest completed level of education? Question 4 of 19

- Primary school
- High School
- Higher Education, e.g. University, HBO...

How often do you use the social media platform Facebook? Question 5 of 19

- Never
- Less than Once a Month
- Once a Month
- 2-3 Times a Month
- Once a Week
- 2-3 Times a Week
- Daily
- Several Times a Day

Appendix D: Descriptive statistics

Table 7: Descriptive statistics of brand reputation as a function of sender, crisis type and country of origin

| Descriptive Statistics | | | | | |
|--------------------------------------|--------|---------------------------------|------|----------------|-----|
| Dependent Variable: Brand Reputation | | | | | |
| Crisis_Type | Sender | What is your country of origin? | Mean | Std. Deviation | N |
| Functional | Brand | Germany | 4,38 | 1,101 | 37 |
| | | The Netherlands | 4,97 | ,741 | 26 |
| | | Total | 4,63 | 1,005 | 63 |
| | Media | Germany | 4,22 | ,855 | 33 |
| | | The Netherlands | 4,47 | ,982 | 26 |
| | | Total | 4,33 | ,913 | 59 |
| | Total | Germany | 4,31 | ,989 | 70 |
| | | The Netherlands | 4,72 | ,897 | 52 |
| | | Total | 4,48 | ,969 | 122 |
| Symbolic | Brand | Germany | 4,31 | ,804 | 34 |
| | | The Netherlands | 4,56 | 1,008 | 26 |
| | | Total | 4,42 | ,899 | 60 |
| | Media | Germany | 3,80 | ,849 | 34 |
| | | The Netherlands | 4,30 | ,690 | 27 |
| | | Total | 4,02 | ,816 | 61 |
| | Total | Germany | 4,06 | ,860 | 68 |
| | | The Netherlands | 4,43 | ,862 | 53 |
| | | Total | 4,22 | ,878 | 121 |
| Total | Brand | Germany | 4,35 | ,964 | 71 |
| | | The Netherlands | 4,77 | ,900 | 52 |
| | | Total | 4,53 | ,956 | 123 |
| | Media | Germany | 4,01 | ,872 | 67 |
| | | The Netherlands | 4,38 | ,842 | 53 |
| | | Total | 4,18 | ,875 | 120 |
| | Total | Germany | 4,18 | ,933 | 138 |
| | | The Netherlands | 4,57 | ,887 | 105 |
| | | Total | 4,35 | ,932 | 243 |

Table 8: Descriptive statistics of attitude towards the brand as a function of sender, crisis type and country of origin

| Descriptive Statistics | | | | | |
|--|--------|---------------------------------|------|----------------|-----|
| Dependent Variable: Attitude towards the brand | | | | | |
| Crisis_Type | Sender | What is your country of origin? | Mean | Std. Deviation | N |
| Functional | Brand | Germany | 4,03 | 1,188 | 37 |
| | | The Netherlands | 4,69 | ,751 | 26 |
| | | Total | 4,30 | 1,075 | 63 |
| | Media | Germany | 4,16 | ,971 | 33 |
| | | The Netherlands | 4,43 | ,968 | 26 |
| | | Total | 4,28 | ,971 | 59 |
| | Total | Germany | 4,09 | 1,086 | 70 |
| | | The Netherlands | 4,56 | ,868 | 52 |
| | | Total | 4,29 | 1,021 | 122 |
| Symbolic | Brand | Germany | 4,21 | ,837 | 34 |
| | | The Netherlands | 4,34 | 1,239 | 26 |
| | | Total | 4,27 | 1,023 | 60 |
| | Media | Germany | 3,71 | ,997 | 34 |
| | | The Netherlands | 4,33 | 1,148 | 27 |
| | | Total | 3,98 | 1,103 | 61 |
| | Total | Germany | 3,96 | ,949 | 68 |
| | | The Netherlands | 4,34 | 1,182 | 53 |
| | | Total | 4,12 | 1,069 | 121 |
| Total | Brand | Germany | 4,12 | 1,032 | 71 |
| | | The Netherlands | 4,52 | 1,030 | 52 |
| | | Total | 4,29 | 1,046 | 123 |
| | Media | Germany | 3,93 | 1,004 | 67 |
| | | The Netherlands | 4,38 | 1,054 | 53 |
| | | Total | 4,13 | 1,046 | 120 |
| | Total | Germany | 4,03 | 1,019 | 138 |
| | | The Netherlands | 4,45 | 1,039 | 105 |
| | | Total | 4,21 | 1,047 | 243 |

Table 9: Descriptive statistics of secondary crisis communication as a function of sender, crisis type and country of origin

| Descriptive Statistics | | | | | |
|-------------------------------|--------|---------------------------------|------|----------------|-----|
| Dependent Variable: Total_SCC | | | | | |
| Crisis_Type | Sender | What is your country of origin? | Mean | Std. Deviation | N |
| Functional | Brand | Germany | 2,57 | ,907 | 37 |
| | | The Netherlands | 2,13 | ,948 | 26 |
| | | Total | 2,39 | ,942 | 63 |
| | Media | Germany | 2,45 | 1,288 | 33 |
| | | The Netherlands | 2,18 | ,912 | 26 |
| | | Total | 2,33 | 1,137 | 59 |
| | Total | Germany | 2,51 | 1,097 | 70 |
| | | The Netherlands | 2,16 | ,921 | 52 |
| | | Total | 2,36 | 1,037 | 122 |
| Symbolic | Brand | Germany | 2,56 | 1,025 | 34 |
| | | The Netherlands | 2,59 | 1,227 | 26 |
| | | Total | 2,58 | 1,107 | 60 |
| | Media | Germany | 2,58 | 1,071 | 34 |
| | | The Netherlands | 2,32 | ,802 | 27 |
| | | Total | 2,46 | ,962 | 61 |
| | Total | Germany | 2,57 | 1,040 | 68 |
| | | The Netherlands | 2,45 | 1,032 | 53 |
| | | Total | 2,52 | 1,034 | 121 |
| Total | Brand | Germany | 2,57 | ,959 | 71 |
| | | The Netherlands | 2,36 | 1,110 | 52 |
| | | Total | 2,48 | 1,026 | 123 |
| | Media | Germany | 2,51 | 1,176 | 67 |
| | | The Netherlands | 2,25 | ,852 | 53 |
| | | Total | 2,40 | 1,049 | 120 |
| | Total | Germany | 2,54 | 1,066 | 138 |
| | | The Netherlands | 2,31 | ,985 | 105 |
| | | Total | 2,44 | 1,036 | 243 |

Table 10: Descriptive statistics of secondary crisis reaction as a function of sender, crisis type and country of origin

| Descriptive Statistics | | | | | |
|-------------------------------|--------|---------------------------------|------|----------------|-----|
| Dependent Variable: Total_SCR | | | | | |
| Crisis_Type | Sender | What is your country of origin? | Mean | Std. Deviation | N |
| Functional | Brand | Germany | 3,54 | 1,208 | 37 |
| | | The Netherlands | 3,01 | ,985 | 26 |
| | | Total | 3,32 | 1,144 | 63 |
| | Media | Germany | 3,27 | ,968 | 33 |
| | | The Netherlands | 3,47 | 1,058 | 26 |
| | | Total | 3,36 | 1,005 | 59 |
| | Total | Germany | 3,41 | 1,102 | 70 |
| | | The Netherlands | 3,24 | 1,039 | 52 |
| | | Total | 3,34 | 1,075 | 122 |
| Symbolic | Brand | Germany | 3,31 | ,951 | 34 |
| | | The Netherlands | 3,23 | 1,026 | 26 |
| | | Total | 3,28 | ,976 | 60 |
| | Media | Germany | 3,81 | 1,008 | 34 |
| | | The Netherlands | 3,09 | ,983 | 27 |
| | | Total | 3,49 | 1,053 | 61 |
| | Total | Germany | 3,56 | 1,005 | 68 |
| | | The Netherlands | 3,16 | ,997 | 53 |
| | | Total | 3,39 | 1,017 | 121 |
| Total | Brand | Germany | 3,43 | 1,091 | 71 |
| | | The Netherlands | 3,12 | 1,002 | 52 |
| | | Total | 3,30 | 1,062 | 123 |
| | Media | Germany | 3,55 | 1,018 | 67 |
| | | The Netherlands | 3,28 | 1,029 | 53 |
| | | Total | 3,43 | 1,027 | 120 |
| | Total | Germany | 3,49 | 1,054 | 138 |
| | | The Netherlands | 3,20 | 1,014 | 105 |
| | | Total | 3,36 | 1,045 | 243 |