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TWENTE.

HOW TO STEAL THUNDER:
THE EFFECTS OF CRISIS COMMUNICATION
TIMING, CRISIS COMMUNICATION FRAMING AND
COMMUNICATION MEDIUM ON CONSUMER'S
TRUST, PERCEIVED SINCERITY, ANGER,
PURCHASE INTENTION AND PERCEIVED CRISIS
SEVERITY

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Abstract

Adequate communication in times of crisis is crucial for a company to avoid reputational damage. Proactively and timely revealing a potential crisis, called stealing thunder, can prove altruistic intentions, and in turn regain consumer's goodwill. However, the effects of other aspects such as message framing and communication medium in relation to crisis communication timing receive only limited attention in extant research. It is still unknown how to optimally create a crisis communication statement in a consumer privacy crisis. Therefore, a scenario-based 2 (crisis communication timing: stealing thunder vs. thunder) x 2 (crisis communication framing: emotional vs. non-emotional) x 2 (communication medium: video vs. text) experiment was conducted with 274 German participants to find out to which extent these variables influence the consumer's trust, purchase intention and anger towards the company as well as the perceived sincerity of the company and the severity of the crisis. Results of the statistical analysis show that the use of a stealing thunder timing approach positively affects the perceived sincerity of the company and the consumer's trust. A text format was preferred over a video format in terms of trust, purchase intention and sincerity perceptions and an emotional framing approach resulted in higher ratings for trust and sincerity as well as perceived crisis severity. No interaction effects were found for the three variables except for the finding that an emotional text and a non-emotional video result in higher anger towards the company. Furthermore, practical implications, limitations and suggestions for further research directions are discussed.

Keywords: crisis communication, stealing thunder, crisis communication framing, communication medium, reputation management

Contents

1. Introduction

For the survival of an organisation, it is crucial to effectively manage in times of crisis. The effectiveness of a crisis communication statement refers, for instance, to how well it helps to avoid reputational harm to the organisation (Choi & Chung, 2013). What is known until now, is that it is beneficial if crisis-related information is proactively and timely self-revealed before another party does (Arpan & Roskos-Ewoldsen, 2005). This timing strategy is called stealing thunder, which can help regaining credibility, trust and behavioural intentions from the consumer (Fennis & Stroebe, 2014; Beldad et al., 2018; Huang & DiStaso, 2020). Moreover, as in today's media landscape brands engage in open-source branding, consumers and users have a participatory influence on how a brand is positioned and perceived, which means that timely revealing a potential threat before others do, is more important than ever, especially in times of shit-storming. Fournier and Avery (2011) call this a power shift from marketers to consumers and emphasize that brand management turns into risk management, as brand managers cannot fully claim control and ownership over their marketing messages on social media, where open-source branding is prevalent.

By using stealing thunder, companies can proactively and timely self-reveal a (potential) crisis in order to avoid alternate narratives, to prove confidence and ability and to show that they value stakeholder's interest more than their own (Arpan & Pompper, 2003).

When investigating the effectiveness of stealing thunder communication strategies, different factors come into play. The company's motivation to proactively reveal crisis-information (Arpan & Pompper, 2003), the pre-crisis reputation (Fennis & Stroebe, 2014) and the crisis type (Hegner, Beldad, & Kraesgenberg, 2016) can have a significant effect on a variety of outcome variables. Extant research so far has revealed positive effects of using stealing thunder on perceived honesty and credibility of the company (Arpan & Pompper, 2003), confidence and ability to handle a crisis (Lee, 2016), customer's trust (Xie & Peng, 2009) or purchase intention (Beldad, van Laar & Hegner, 2017).

Clearly, the one and only most appropriate response strategy in times of crisis simply does not exists. A variety of tools at hand can be combined to a holistic approach adapted to specific types of crises. A universal response strategy, at the right time and through the right medium does not exists, which in turn calls for the study of different factors that play a role in reducing reputational damage. How and when a company should optimally spread information about a crisis is still underexplored and needs to be examined in detail to further advance scientific research and help companies to cope with the rapidity of today's communication landscape. The current study aims to fill this gap by looking at the main and interactional effects of several crucial factors in the design of a crisis communication statement. The purpose of this study is twofold: first, it aims at once again confirming the prevalent position in academia, that a proactive timing strategy is more effective than reactive timing. Secondly, the current study is the first to examine the relation between crisis communication timing, framing and communication medium for this specific type of privacy violation crisis.

In this context, the framing of a crisis communication message, whether emotional or non-emotional, plays a crucial role in crisis communication. Studies show that when emotionally framing a message, respondents had higher intentions to forgive the company (Kauffman, 2008; Legg, 2009) and displayed higher levels of trust (Huang & DiStaso, 2020). Moreover, it becomes important to find out, how to convey a crisis communication message. In this sense, video-taped content, which is richer in terms of verbal and non-verbal cues (Daft & Lengel, 1986) can benefit the perception of the crisis communication and displays a clear gap in extant academic research. To further advance a more holistic view on crisis communication, this research intends to provide insight into the interaction between the variables crisis communication timing, framing and communication medium. A study by Claeys, Cauberghe and Leysen (2013), for instance, reveals that when companies self-disclose (stealing thunder) an emotionally framed message, they receive higher ratings in terms of

perceived post-crisis reputation than when a rationally framed message was used. Similarly, the use of a video-recorded statement could enhance the positive effects of stealing thunder.

This study thus investigates possible effects of using stealing thunder (vs. thunder strategy) on post-crisis trust, perceived sincerity of the company, anger towards the company, purchase intention and perceived crisis severity. Additionally, this study is intended to reveal, whether the company should frame the crisis message in an emotional or non-emotional way and which communication medium (video vs. text) to optimally use. Several crucial implications can be drawn for companies that see themselves confronted with the ambiguity of crisis communication and the complexity of designing adequate crisis statements.

The following research questions have been formulated**:**

RQ1: To what extent do the crisis communication timing (stealing thunder vs. thunder), the framing of the message (emotional vs. non-emotional) and the medium (text vs. video) have a direct effect on the perceived post-crisis trust and sincerity of the company as well as the anger towards the company, the consumer's purchase intention and the perceived severity of the crisis?

RQ2: To what extent do the crisis communication timing (stealing thunder vs. thunder), the framing of the message (emotional vs. non-emotional) and the communication medium (text vs. video) interact and influence perceived trust, sincerity, anger and purchase intention as well as severity?

RQ3: To what extent are the effects of framing of the message (emotional vs. non- emotional) on trust mediated by sincerity?

2. Theoretical Framework

2.1 Crisis communication and its impact on trust, sincerity, anger and purchase intention

A crisis can be defined as "a major occurrence with a potentially negative outcome affecting the organization, company, or industry, as well as its publics, products, services, or good name" (Fearn-Banks, 2002, p. 2). Different crisis communication strategies serve as means to prevent possible deterioration of crises. Situational crisis communication theory (SCCT) states that crisis communication strategies influence how people perceive the crisis (Coombs, 2007). Crisis response strategies for instance include denying, diminishing, rebuilding or bolstering activities. Furthermore, different crisis types are known. Coombs (2007) identified the victim cluster, where the company positions itself as victim of the crisis, the accidental cluster, which stresses the unintentional nature of the company's responsibility and the intentional cluster, which sees the company as main initiator and cause of the crisis. The rapidity of today's media landscape stresses the need to take into account the holistic interplay of different factors such as framing or medium use. Unlike traditional media that formerly acted as "gatekeepers" to filter information (Lee & Cho, 2011), social media permit to distribute messages unfiltered from the primary source, the company, which makes it even more important for company to design the most appropriate crisis statement.

Users perceive the content or the sender and make inferences about the believability of a company's intentions. In this context, the sincerity of a statement and in turn the sincerity perception of a company are crucial. According to Risen and Gilovich (2007), an apology is seen as sincere, when it is conveyed in a heartfelt and genuine manner. Whether a statement is perceived as sincere or insincere can have effects on how people evaluate a company (Kim, 2011). The concept of perception is important to mention here, as sincerity does not concern the true motives behind for instance a CSR campaign, but rather the motives that are inferred by the public or consumer (Kim, 2011). Sincerity can be seen as part of organisational

credibility but differs considerably from it. Credibility mostly refers to a company's trustworthiness, expertise and the transmission of correct information, whereas sincerity refers to how heartfelt and genuine the company's intent is perceived and can help examining overall credibility (Tormala & Petty, 2004). Sincerity has not been extensively researched in relation to crisis communication yet. A study by Claeys, Cauberghe and Leysen (2013) found positive effects of an ex-antecrisis timing strategy (stealing thunder) in combination with the emotion sadness, where sincerity functioned as a mediator.

Next to sincerity, extant research focused on post-crisis trust after exposure to a crisis (Beldad et al., 2018). Trust can be defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer, Davis & Schoormann, 1995, p. 712). Trust has been found to be enhanced by the right choice for a timing strategy, namely stealing thunder (Fennis & Stroebe, 2014; Beldad et al., 2018; Huang & DiStaso, 2020). Similarly, also message framing can have effects on trust, as emotional framing in crisis communication of a hospital resulted in higher trust ratings (Huang & DiStaso).

Furthermore, the emotion anger is included as a measure in the current study. According to Jin, Pang and Cameron (2007, p. 4) "in a crisis, as the conflict between the publics and the organization develops, emotions are one of the anchors in the publics' interpretation of what is unfolding, changing, and shaping". In this context, anger can be seen as a dominant emotion which is experienced when an individual is confronted with an affront or attack on their personal wellbeing (Jin, Pang & Cameron, 2007). Framing of for instance news stories significantly affected how people responded emotionally. Nabi (2002) found that statements can be designed in a way to elicit different emotions, this could not only be applicable to news coverage, but also be relevant in crisis communication.

Purchase intention is measured in the current study. It has been found to increase if the initiator of the crisis displays responsibility (Mansor & KaderAli, 2017) and can be defined as the consumer's willingness to buy a product which is directly linked to the likelihood of actually buying it. Laufer and Coombs (2006); Vassilikopoulou, Siomkos, Chatzipagnagioto and Pantouvakis (2009) and Klein and Dawar (2004) show that the perception of how a company handles a crisis influences consumers' purchase intention after a crisis, which makes the right choice of a crisis communication strategy even more essential. Arpan and Roskos-Ewoldsen (2005), for instance found that self-disclosing a crisis leads to a higher purchase intention.

Finally, the perceived severity of a crisis has to be taken into account as an essential antecedent in the consumer's perception of crisis responsibility (Kim, Johnson & Park, 2017). Is has not been explored yet whether crisis communication timing, framing and the choice of a communication medium influence the perceived severity of a crisis, which could have important implications for managers aiming at diminishing reputational damage and altering the perception of the company's responsibility.

2.2 The role of personal privacy valuation

In the current study the personal privacy valuation of the participants acts as a control variable. The extent to which individuals value their privacy can be defined as "[the] willingness to preserve their private space or to disallow disclosure of personal information to others across a broad spectrum of situations and persons" (Xu, Dinev, Smith & Hart, 2008, p.7). Especially digital services rely on personal data, and in turn on the willingness of the consumer to provide this data. The company, on the other hand, is responsible to protect that data. Individuals can have different degrees of privacy valuation, some might perceive privacy issues as an intrusion in their personal life, whereas others might show greater extents of willingness to share their data (Karwatzki, Dytynko, Trenz & Veit, 2017). A study by Krasnova, Vetri and Günther (2012) looked at the cultural differences between the United States and Germany in conjunction

with the importance of privacy. Using the cultural dimensions by Hofstede (2011), the German culture can be described by high levels of uncertainty avoidance, meaning that people might be less inclined to take risks, whereas the United States score significantly lower in terms of uncertainty avoidance. Both cultures have relatively high scores of individualism with the United States as one of the most individualistic cultures. Results of the study indicated that Germans who highly avoid uncertainty are more prone to have higher privacy concerns and in turn self-disclose less private information, whereas users from the United States tend to be more optimistic in terms of self-disclosure (Krasnova, Vetri & Günther, 2012). In order to avoid the influence of differences in privacy valuation, participants are asked to indicate the importance of privacy before being manipulated by the stimulus material.

2.3 The impact of crisis communication timing

The more time companies spend on waiting to communicate in times of crisis, the less likely it is to fully control the crisis situation and to regain trust from the consumer (Fennis & Stroebe, 2014; Beldad et al., 2018; Huang & DiStaso, 2020). Moreover, reacting too late also means that third parties such as media, and the target audience may themselves spread false or incorrect information or get their information about the crisis from unreliable sources, which in turn makes the company lose control over the situation (Claeys et al., 2013). Therefore, companies can choose for stealing thunder, where the company reveals information on the crisis before others do. The company can thus be seen as the initiator of the crisis, as this specific information has not been published before (Arpan & Roskos-Ewoldsen, 2005). Stealing thunder has for instance been found to improve relationships with journalists (Arpan & Pompper, 2003) or enhance credibility ratings of companies (Arpan & Roskos-Ewoldsen, 2005). On the other hand, it can rapidly turn to the opposite when the targets realise or detect the brand's or company's self-interest in crisis communication (Lee, 2016).

Researchers have covered the concept of stealing thunder in different areas, such as jury trials, police communications (Fowler, 2017) or political communication. Fowler (2017), for instance, found that by proactively communicating the news of a shooting, the police department was perceived as more credible and legitimate. In the context of jury trials, defendants were perceived as more credible when they confessed as when others revealed negative information about them (Williams & Dolnik, 2001). The field of crisis communication in a corporate context has also been researched (e.g. Arpan & Pompper, 2003; Beldad, van Laar & Hegner, 2018; Arpan, & Roskos-Ewoldsen, 2005). The aforementioned studies found positive effects of using a stealing thunder strategy on company ratings, but did not yet explore how to optimally frame a crisis communication message and which communication medium to use.

Fennis and Stroebe (2014) found that organisations using a stealing thunder strategy were more trusted after the crisis. The concept of trust has been extensively researched by Beldad et al. (2018). They found that when a stealing thunder strategy is used during a product-harm crisis, participants displayed more trust and higher purchase intents towards a brand.

According to Mansor and KaderAli (2017), when organisations are voluntarily and timely communicating the recall of products, which they call "responsive recall", consumers are more likely to have a positive purchase intention compared to when the organisation acts opportunistically. This means, that if the company takes responsibility and reveals the issue by themselves, people will react more positively in terms of purchase intention after the crisis. This could also mean that they feel less attacked, which in turn could reduce their emotion anger towards the company. In line with the aforementioned findings, it is hypothesised that the timely and proactive revelation of a crisis will overall result in higher ratings of trust, sincerity and purchase intentions and lower ratings of anger and severity.

H1: Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company,

(d) will have higher purchase intentions and (e) perceive the crisis as less severe when stealing thunder is used as opposed to thunder.

2.4 The impact of communication medium

The emergence of social media has profoundly changed the way organisations communicate with their audiences, open-source branding permits consumers to shape brand equity, which also means that social media users might be able to trigger crises on social media (Pang, Hassan, & Chong, 2014). Oftentimes, crises first appear on social media and are then covered by traditional media which makes the use of social media essential for crisis communication (Pang, Hassan, & Chong, 2014).

There is a variety of options to convey a message and social media foster the choice for rich, interactional and video content. This makes it crucial to investigate which communication technology to ideally use in crisis communication. The media richness theory (Daft & Lengel, 1986) explains why one might choose a specific technology over another. The richer a communication medium is, the more effective it might be to reach the receiver of a message. In this context, video communication is seen as richer than text messages, as additional cues such as verbal expressions, nonverbal mimics or face expressions complement the content of the message. In turn, these cues also make the sender be perceived as more socially present (Daft & Lengel, 1986)

The question is whether the choice for a richer medium such as video benefits the sender of the message in a crisis. Receivers of a message might consider the organisation sending the message as more sincere as the organisation seems to be concerned about people affected by putting a lot of effort into transmitting a message, personally coming from the organisation in video-format (Coombs & Holladay, 2002).

The use of video content in crisis communication shows a clear gap in extant research, especially in relation to crisis communication timing. Only few studies focused on video media

(i.e., Coombs & Holladay, 2002) in combination with crisis communication, whereas the majority of studies in that context rely on written communication messages (i.e., Arpan & Roskos-Ewoldsen, 2005). A study by von Rosenstiel (2019, not published) compared text and video messages in combination with different message sources for different types of crises. The results show that video messages received higher evaluations in terms of trust and purchase intention, which can be explained using the media richness theory, as mentioned above. It is therefore hypothesised that the use of a video format benefits the company in terms of sincerity, trust and purchase intentions, but in turn decreases notions of anger and crisis severity. As this topic is overall underexplored, the current study's purpose is to shed light on a possible confirmation of media richness theory in crisis communication.

> ***H2****: Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company, (d) will have higher purchase intentions and (e) perceive the crisis as less severe when the statement is communicated via video as opposed to text.*

2.5 The impact of crisis communication framing

In accordance with the aforementioned richness of a medium, people use aspects such as the use of language in order to evaluate and form relationships (Walther, 2008). The framing of a message in online interaction can be used as a cue to evaluate a company in times of crisis. Obviously, the content of the message is important, but how a message in communicated can influence how the company is perceived in a crisis and can therefore ultimately impact crisis management (Choi & Lin, 2009).

One way to influence how consumers perceive a certain message, is the use of a framing strategy. In a crisis, emotions play a crucial and indispensable role, calling for an "emotion-driven perspective" (Jin, Pang & Cameron, 2007), meaning that crisis communication is shaped by dominant emotions. According to Jin, Pang and Cameron (2007, p.4), "[…] as the

conflict between the publics and the organization develops, emotions are one of the anchors in the publics' interpretation of what is unfolding, changing, and shaping." Therefore, companies should not only take into account the timing of a crisis statement and the channel through which it is conveyed, but also how they communicate to their audience, as emotional framing is a powerful persuasion tool (Van Kleef, van den Berg & Heerdink, 2015).

There are conflicting findings when it comes to the effectiveness of those message appeals. Stafford and Day (1995) for instance, found that consumers prefer rational ads over emotional ones in a service setting, as an emotional appeal led to the feeling of information scarceness. Especially for services that are more intangible in nature, the perception of information completeness seems to be more important when it comes to framing in advertising. Only few studies examined the effects of message framing in a crisis communication context.

Gonzalez-Herrero and Smith (2008), for instance, found that using an informal human voice on social media in crisis situations leads to better perceptions of the company's interest in engaging in relationships. The use of for instance emotions in crisis communication can influence how targets perceive the company (Choi & Lin, 2009), this is typically done through changing characteristics of a message appeal (Flora and Maibach, 1990). Emotional framing relates to the more subjective expression of a message and the use of emotional terms. In this study, non-motional framing is used as the opposite framing strategy of emotional framing by presenting information and facts, without expressing subjective evaluation.

The current study thus uses an emotional and a non-emotional framing appeal to test whether the use of emotions benefits the perception of a crisis communication message in terms of perceived post-crisis trust, sincerity of the company, anger, purchase intention and severity perceptions.

Studies found that using emotions in crisis communication could influence the extent to which people forgive organisations. Such an example is the use of sadness as emotion that resulted in higher ratings of forgiveness (Kauffman, 2008; Legg, 2009). Respectively, the use

of emotional framing could also decrease notions of anger in the context of company evaluations in crisis communication. Huang and DiStaso (2020) found that an emotionally framed message is more suitable for crisis communication on social media. In their recent study they compared an emotional and a rational appeal in crisis communication of a hospital on Facebook and found that the emotional approach resulted in higher trust and higher reputation evaluations of the organisation compared to the rational condition. It is therefore hypothesised that the use of emotional framing is more appropriate for crisis communication than non-emotional framing. Specifically, it is hypothesized that:

H3: Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company, (d) will have higher purchase intentions and (e) perceive the crisis as less severe when an emotional frame is used as opposed to a non-emotional frame.

2.6 Crisis communication timing and framing

As mentioned earlier using emotions in crisis communication can significantly influence the perception of a company (Kauffman, 2008; Legg, 2009). Furthermore, proactively and timely revealing a potential crisis, called stealing thunder also resulted in better evaluations of companies (Fennis & Stroebe, 2014;, Beldad et al., 2018).

In their study, Claeys, Cauberghe and Leysen (2013) combined crisis communication timing and message framing and found that when companies self-disclose an emotionally framed message, they receive higher ratings in terms of perceived post-crisis reputation than when a rationally framed message was used. This means that the effectiveness of message framing was highly dependent on the timing strategy, either proactive or reactive (Claeys, Cauberghe & Leysen, 2013). For the case in which the company only reacted to a third party, thus used a thunder timing strategy, the choice of emotion did not play a role. This could be due to the fact that when being the first one to reveal a crisis, the company still has the freedom to chose for the best suitable framing of the message. When the company does not self-disclose

the information, it is not relevant how the message is framed anyways. It is therefore hypothesised that:

> **H4**: *When a company steals thunder in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when an emotional frame (as opposed to non-emotional) is used.*

> **H5**: *When a company does not steal thunder in crisis communication, the choice for a specific framing strategy will not matter.*

2.7 Crisis communication timing and communication medium

Scholars agree that timely and proactively revealing a potential crisis can be beneficial in terms of various outcomes such as higher credibility ratings (Arpan & Roskos-Ewoldsen, 2005), trust (Beldad et al., 2018) and behavioural intentions (Mansor & KaderAli, 2017). Knowing that people respond more positively when a crisis is proactively self-disclosed, one can expect that this is the case regardless of the medium trough which the message is conveyed. As a company already shows the goodwill to self-reveal a potential threat, there might not be the expectation from consumer to choose a specific communication medium. Thus far, there is no evidence in research, which combination of crisis communication timing and medium is the most appropriate one. It is questionable whether it matters how the crisis communication message is conveyed to the target audience. In accordance with media richness theory (Daft & Lengel, 1986), it can be assumed that a for the cases of reactive crisis communication timing (thunder) it might be more beneficial to communicate via video, which is seen as richer.

> **H6**: *When a company steals thunder in crisis communication, the use of a specific communication medium (video vs. text) will not matter.*

H7: When a company does not steal thunder in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a video format (as opposed to text) is used.

2.8 Crisis communication framing and communication medium

As already discussed earlier, a video offers a richer environment, especially when it comes to non-verbal cues. It was hypothesised that using a video format when communication in crisis is always more beneficial (Daft & Lengel, 1986). Similarly, using emotions in order to persuade consumers of the company's concern to regain for example trust, has also been found to elicit more favourable emotions compared to a more rational framing appeal (Huang & DiStaso, 2020). Even though, this topic is underexplored in current scientific literature, it can be assumed that a video statement that is emotionally framed will receive more positive evaluations than other combinations of framing and medium and that also a text is more effective when it is framed in an emotional way, as it increases the power to persuade the reader (Van Kleef, van den Berg & Heerdink, 2015).

H8: When a company uses an emotional framing appeal (as opposed to a non-emotional appeal) in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a video format (as opposed to text) is used.

H9: When a company uses a text statement (as opposed to video) in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when it is framed in an emotional way.

2.9 Three-way interaction among Crisis Communication Timing and Communication Medium and Crisis Communication Framing

In line with prior assumptions, it is hypothesised that most effective crisis communication strategy includes the use of a proactive stealing thunder statement that is emotionally framed and conveyed in a video format. However, it is hypothesised that when a stealing thunder strategy is used, the choice for a medium and a framing strategy might not matter anymore. As there is not evidence in academic literature, one can only assume, that when a reactive timing strategy is used (thunder), the company will receive more positive evaluations, when the statement is emotionally framed and conveyed as a video.

> ***H10:*** *Customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a stealing thunder timing strategy (as opposed to thunder) regardless of the framing strategy and the medium that are used.*

> ***H11:*** *Customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a thunder timing strategy (as opposed to stealing thunder) is communicated as a video (as opposed to text) in combination with emotional framing (as opposed to non-emotional framing).*

2.10 Sincerity as a mediator

According to Im, Youk, and Park (2021, p.2) "an insincere message is deceptive in its character, [so] the stakeholders may not trust what the organization said". Sincerity can therefore be seen as an essential antecedent of trust in the relationship between crisis communication strategies and evaluations of the company. Claeys, Cauberghe and Leysen, (2013) found that sincerity acted as a mediator between message framing and the perceived reputation of a company. The

use of sadness in an ex-antecrisis timing strategy led to better ratings of the company's post-crisis reputation due to the fact the company was perceived as more sincere. It can therefore be assumed, that sincerity moderates the relationship between message framing and trust and that the finding by Claeys, Cauberghe and Leysen, (2013) can be confirmed.

> *H12: The more sincerity people attribute to the company, the more trust they will have in the company.*

Figure 1

Research Model
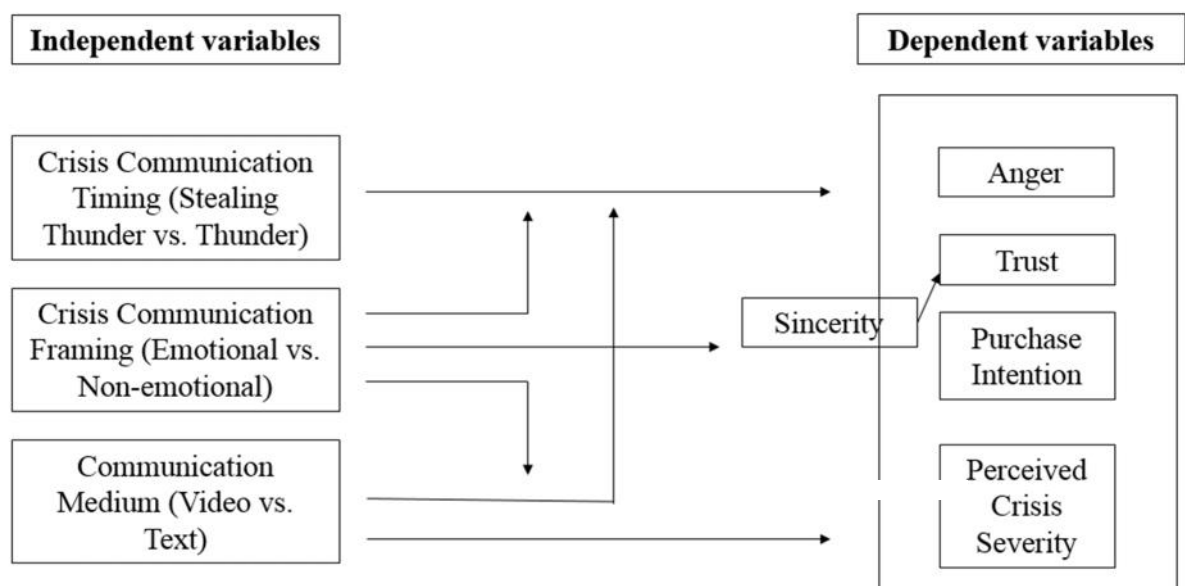
3. Method

3.1 Design

In this experimental study, a 2 (crisis communication timing: stealing thunder vs. thunder) x 2 (crisis communication framing: emotional vs. non-emotional) x 2 (communication medium: video vs. text) between-subjects design was used. Eight different scenarios with different combinations of the three independent variables were created to test the hypotheses. Table 1 shows the different scenarios shown to the participants.

Table 1

Stimulus materials and respective scenarios

Number of conditions	Crisis Communication Timing	Crisis Communication Framing	Communication Medium
1	Stealing thunder	Non-emotional	Text
2	Stealing thunder	Emotional	Text
3	Thunder	Non-emotional	Text
4	Thunder	Emotional	Text
5	Stealing thunder	Non-emotional	Video
6	Stealing thunder	Emotional	Video
7	Thunder	Non-emotional	Video
8	Thunder	Emotional	Video

3.2 Pre-test

As the crisis communication message in the video is conveyed by a real person, a pre-test was conducted in order to create the stimulus materials in the most authentic way. Ten participants were asked to indicate the typical gender of a CEO and which age a CEO typically has. Additionally, participants could indicate which clothes a CEO should wear (casual, business clothes or not important). A total number of 10 people of whom 6 were female and 4 were male

participated in the pre-test. They were recruited by convenience and their age ranged from 23 to 58 with a mean of 34 years. The participants, that were chosen by the researcher, had to answer six questions about how they imagine a typical CEO. All participants imagined a CEO as being male, 7 of them consider someone between 40 and 50 years as most trustworthy, knowledgeable and capable of leading a company, 3 respondents chose and optimal age between 50-60 years. Almost all participants (n = 9) preferred a business-like dress code. Based on these results and the availability of persons willing to portray a CEO in the videos, a male speaker with an age of 52 years was chosen.

Finally, the complete questionnaire was also checked in terms of spelling, understandability, readability and grammatical correctness by several co-readers and the manipulations were checked for correctness.

3.3 Materials

For this experiment, a fictional brand and crisis communication message were used to exclude initial experiences with a brand which could bias subjects (Siomkos, 1999). Only German participants were included in the study to avoid cultural differences in the responses. Therefore, the stimulus materials were created in German. A translation-back translation approach was used to ensure that the German items are very close to the English items in terms of meaning.

Participants either received a video or a text scenario. The variable communication medium was manipulated by either showing a video in which the CEO of the German telecommunications company "TELO AG" released a statement concerning a privacy crisis or by showing a text released by the same CEO with the same content to avoid any other differences apart from the intended manipulation. A screenshot of the video can be found in appendix A.

In order to manipulate the timing of the crisis communication, the message contained either a stealing thunder condition or a thunder condition. In the former, the brand message

contains that the company found out about the crisis due to internal investigation and is the first to reveal the presence of the crisis, which underlines the proactive intent (Arpan & Roskos-Ewoldsen, 2005). As opposed to stealing thunder, in the thunder condition the CEO stresses the reactive nature of the message by stating that several press articles already reported the crisis.

The variable crisis communication framing also has two levels: emotional vs. non-emotional framing. The emotional condition was created by using words that characterise the emotion sadness of the crisis event. Those markers are for example: "leider" (unfortunately), "zutiefst bestürzt" (deeply saddened), „bedauern außerordentlich" (deeply regret) and "außdrücklich" (particularly emphasize). The non-emotional condition is characterised by the absence of those emotional markers. Figure 2 shows two text scenarios, one that includes the emotional condition and the other one that belongs to the non-emotional message framing. Videos and texts of each framing condition contain the exact same wording and content.

Figure 2

Examples of message framing text scenarios (left: non-emotional framing stimulus, right: emotional framing stimulus)

3.4 Procedure

A snowball sampling technique was used to approach participants by messenger apps, Instagram, Facebook, LinkedIn and e-mail. A link to an online survey using the software Qualtrics was sent to German participants who were then randomly assigned to one of the eight conditions discussed above. After receiving the link, they were informed about the general aim of the study in the context of the Master Thesis, the approximate time they need complete the questionnaire, the anonymity of their responses and demographic information and their right to opt out at any time. The contact details of the researcher were also provided. After confirming the introductory statement, participants were asked to provide demographic information such as their age, their gender, their highest level of education and their nationality, which was presented with a multiple-choice answer with either "German" or "other" to only include Germans for the final statistical analysis.

In the next part of the survey, participants were asked to rate three privacy statements on 5-point Likert scales. Then, a short introductory text about the company "TELO AG" was presented informing the respondents about the company and its services. The participants were then directed to one of the eight scenarios and asked to carefully read/watch the presented information. Manipulation check questions were asked with 5-point Likert scales to ensure correct manipulations.

In the last part of the survey participants had to rate several statements measuring the dependent variables (sincerity, trust, anger, purchase intention and crisis severity). At the end of the survey, they were informed about the fictious nature of the scenarios and the company.

3.5 Manipulations

As mentioned above, the manipulations of the independent variables in the eight scenarios were checked posing 12 questions in total. Participants were asked to rate different statements with 5-point Likert scales ranging from (1) "Totally disagree" to (5) "Totally agree".

First, participants were asked to recognise the communication medium (text, video, written, verbal) that was presented in the scenario. Participants rated statements such as "The crisis was communicated via video" or "The crisis was communicated in written form.".

Then, they had to indicate how the crisis communication scenario was framed (emotional, non-emotional, showing emotions, not showing emotions) rating four statements such as for instance "TELO AG shows emotions" or "TELO AG was not emotional".

The third manipulation was checked by asking respondents to rate who published information about the crisis first (TELO AG was the first/not the first, proactive through internal investigations, reacting to press releases). Participants had to rate for example "TELO AG was the first to publish information about the crisis." or "TELO AG reacted to several press articles mentioning the crisis.".

Cronbach's alphas were calculated using IBM SPSS software because each independent variable had two levels that were measured by two statements. The scores can be found in Table 2.

Table 2

Cronbach's Alpha reliability scores for the independent variables

Independent variable	Cronbach's alpha
Communication medium	
Video manipulation statement	.90
Text manipulation statement	.94
Crisis Communication Timing	
Stealing Thunder manipulation statement	.73
Thunder manipulation statement	.80
Crisis Communication Framing	
Emotional manipulation statement	.85
Non-emotional manipulation statement	.89

The different manipulations were tested performing an independent T-test. There was a significant difference found for the video manipulation ($t(272) = 36.63$, $p < .001$). The participants who were assigned to watch a video also correctly identified it as such ($M = 4.54$, $SD = .71$) and not as a text ($M = 1.51$, $SD = 0.65$).

In addition, also the text manipulation correctly worked. There was a significant difference found for the text manipulation ($t(272) = 34.06$, $p < .001$). Those who received a text as stimulus materials also indicated to see a text ($M = 4.55$, $SD = 0.64$) rather than a video ($M = 1.51$, $SD = 0.82$).

An independent t-test also showed a significant difference for the stealing thunder manipulation ($t (272) = 9.44$, $p < .001$) within the crisis communication timing variable. Those who were assigned to the stealing thunder condition also recognized it as such ($M = 3.65$, $SD = 0.91$) as opposed to those who were not ($M = 2.54$, $SD = 1.03$).

The manipulation for the thunder condition also succeeded. An independent t-test found a significant difference for thunder ($t(272) = 10.08$, $p < .001$). Those who were assigned to the thunder timing condition also perceived it as such ($M = 3.63$, $SD = 1.08$) as opposed to those who were not ($M = 2.36$, $SD = 1.00$).

Finally, an independent samples t-test revealed a significant difference for the emotional message framing ($t(272) = 10.00$, $p < .001$). Those who received an emotional framing appeal also identified it as emotional ($M = 2.99$, $SD = 0.90$) as opposed to those who did not receive that manipulation ($M = 1.95$, $SD = 0.82$).

A significant difference was also found for non-emotional message framing ($t(272) = 9.28$, $p < .001$) meaning that participant who either watched or red a non-emotional message also recognised it as non-emotional ($M = 3.75$, $SD = 1.06$) as opposed to those who were not manipulated with a non-emotional frame ($M = 2.55$, $SD = 1.08$).

3.6 Participants

Three hundred and seventeen participants finished the survey, from which 21 were excluded because they had a nationality other than German. Furthermore, some respondents answered the questions too fast (below 4 minutes) or too slow (more than 60 minutes). Those respondents (n = 22) were also removed. Data of a total of 274 participants was considered for the final analysis.

Before indicating their demographic data such as gender and age and before seeing the stimulus material, participants were asked to rate three privacy valuation statements on 5-point Likert scales anchored by (1) "Totally disagree" and (5) "Totally agree". The personal privacy valuation of the respondents was measured due to the nature of the fictious crisis, being a consumer data leak that highly concerns the individual's personal privacy. The scores indicate how respondents value their privacy, which serves as a control variable in later statistical analysis.

The three statements "I find it important to have control over the use of my personal information", "I find it important that I can determine who should have access to my personal information" and "I am convinced that my information privacy should be respected and protected" were adopted from Beldad (2016). Participants generally highly value their privacy with a mean score of $M = 4.36$ ($SD = 0.58$). They find it important to have control over the use of their personal information ($M = 4.16$, $SD = 0.74$) and to determine who should have access to their personal information ($M = 4.38$, $SD = 0.69$). Furthermore, they are overall convinced that their information privacy should be respected and protected ($M = 4.53$, $SD = 0.66$).

The age of the participants ranged from 18 to 71 with a mean of 34 years. 65% of the sample were women, whereas 35% were men. 26% of the respondents indicated to have a Bachelor's degree, followed by 23% who acquired their Abitur (a-levels) and 19% completed an apprenticeship. The respondents were approximately evenly assigned to the conditions, with

at least 30 persons per condition and a maximum of 38 persons per condition. Table 3 shows the distributions per condition.

Table 3

Distributions and means per condition

Condition	Stimuli	N	%	Mean Age	Gender division
1	Text, stealing thunder, non-emotional	37	13.5%	36.7	27 female 10 male
2	Text, stealing thunder, emotional	30	10.9%	37.1	19 female 11 male
3	Text, thunder, non-emotional	32	11.7%	36.3	22 female 10 male
4	Text, thunder,emotional	36	13.1%	33.9	19 female 17 male
5	Video, stealing thunder, non-emotional	33	12.1%	32.5	19 female 14 male
6	Video, stealing thunder, emotional	31	11.3%	32.4	22 female 9 male
7	Video, thunder, non-emotional	37	13.5%	31.2	25 female 12 male
8	Video, thunder, emotional	38	13.8%	30.3	25 female 13 male
Total		**274**	**100**		

3.7 Dependent measures

The five dependent variables (sincerity, trust, anger, purchase intention and severity) were measured using 5-point Likert scales ranging from (1) "Totally disagree" to (5) "Totally agree".

Four items for the measure "sincerity" were adopted from Choi and Chung (2013) and three additional items were presented. The seven items measuring "sincerity" contained for instance: "The statement from TELO AG is sincere" or "The statement from TELO AG sounds authentic".

To measure the dependent variable trust, nine items were adopted from Mayer and Davis (1999). The items measuring ability-based trust contained statements such as: "After receiving the statement, I think TELO AG is capable of handling the crisis". For the items measuring benevolence-based trust, statements such as: "After receiving the statement, I think that my needs and desires are very important to TELO AG" were used. An example statement for integrity-based trust is: "After receiving the statement, I think that TELO AG has a strong sense of justice".

The variable anger was measured using four items adopted from McDonald, Glendon, and Sparks (2011). Statements such as: "After receiving the statement from TELO AG, I feel angry" or "After receiving the statement from TELO AG, I feel disgusted" were used.

Purchase intention was measured using two items from Lyon and Cameron (2004) and two additional items. Statements of the individual items were for example: "After receiving the statement, I will buy products from the TELO AG in the future" or "After receiving the statement, I could imagine buying products from TELO AG".

In addition, the severity perception of the different scenarios was measured to see whether participants perceive the independent variables as different in terms of severity. Three items were adopted from Hong and Len-Rios (2015). Statements such as "The crisis experienced by TELO is serious" were used.

To check internal reliability of the dependent variables, their Cronbach's alpha has been computed. Table 4 shows the scores for each variable. All scores are above 0.7 indicating a high reliability (Cortina, 1993). The software IBM SPSS Statistics was used for further statistical analysis of the data.

Table 4

Cronbach's alpha score for the dependent variables

Dependent variable	Cronbach's alpha
Sincerity	.86
Trust	.91
Anger	.82
Purchase intention	.91
Perceived crisis severity	.82

4. Results

4.1 Correlations between the dependent variables

In order to have a first look at the relationships between the variables, a correlation analysis was conducted, showing the linear relations. The Pearson's Correlation scores in table 5 show the relationships between the dependent variables. Almost all correlations are significant except for the relationship between trust and the perception of severity. It can be assumed that when trust is high, sincerity and purchase intention are also high, whereas anger is low. When sincerity is high, purchase intention is also high whereas anger is low. Negative correlations are thus found for the relationship between trust and anger, between sincerity and anger and between anger and purchase intention. Furthermore, the relationship between purchase intention and severity perception is also negative. In further analysis, these correlations are specified.

Table 5

Pearson Correlation dependent variables

	Trust	Sincerity	Anger	Purchase Intention	Severity Perception
Trust	1				
Sincerity	.79 **	1			
Anger	-.42**	-.34**	1		
Purchase Intention	.57**	.48**	-.37**	1	
Severity Perception	-.05	.12*	.20**	-.22**	1

** $p < 0.01$
* $p < 0.05$

4.2 Main effects of communication medium, crisis communication timing and crisis communication framing with personal privacy valuation as a control variable

In order to answer the first research question, the direct effects of the three independent variables were examined.

As described in the previous section, participants had to indicate how they value their privacy before interacting with the stimulus materials. Personal privacy valuation is thus seen as a control variable in the current experiment. Previous analysis revealed that participants generally highly value their privacy with a mean score of M = 4.36. A multivariate analysis of covariance with the controlled covariate personal privacy valuation shows a significant main effect of privacy valuation ($F(5,261 = 3.76$, $p = .003$) on perceived crisis severity and anger, meaning that the higher people value their privacy, the more severity they attribute to the crisis at hand and the more anger they feel towards the company. The following reports of the results of statistical analyses thus include the control variable privacy valuation, that participants had to indicate before being exposed to the manipulations.

4.2.1 Crisis Communication Timing

A MANCOVA reveals a significant main effect of crisis communication timing ($F(5,261 = 2.76$, $p = .019$) on two dependent variables: trust and sincerity. Those who received a crisis communication statement with a stealing thunder manipulation indicated higher trust scores towards TELO AG ($M = 3.10$, $SD = 0.06$) than those who received a thunder message ($M = 2.91$, SD = 0.06). Furthermore, a significant effect was found for the dependent measure sincerity. TELO AG was evaluated as more sincere when participants saw a stealing thunder message ($M = 2.99$, $SD = 0.06$), as opposed to those who received a thunder statement ($M = 2.83$, $SD = 0.06$). There was no significant main effect found for anger, purchase intention and severity perception. Therefore, the hypotheses 1a and 1b can be supported. Table 6 shows the means and standard deviations for all dependent variables.

Table 6

Means and standard deviations for Crisis Communication Timing

Dependent variables	Stealing Thunder				Thunder		
	N	M	SD		N	M	SD
Trust	131	3.10	0.06		143	2.91	0.06
Sincerity	131	2.99	0.06		143	2.83	0.06
Anger	131	2.77	0.07		143	2.63	0.07
Purchase intention	131	2.28	0.07		143	2.11	0.07
Severity	131	3.99	0.06		143	3.93	0.06

Table 7

MANCOVA effects for Crisis Communication Timing

Dependent variables	Sum of sq.	df	Mean sq.	F	Sig.
Trust	2.30	1	2.30	4.65	.032
Sincerity	1.77	1	1.77	3.97	.047
Anger	1.32	1	1.32	1.88	.171
Purchase intention	1.95	1	1.95	3.27	.072
Severity	0.33	1	0.33	0.64	.424

4.2.2 Communication Medium

A MANCOVA was conducted to test the effects of communication medium. A significant effect was found for communication medium ($F(5,261) = 2.97, p = .013$) on the three dependent variables trust, sincerity and purchase intention. Those participants who were exposed to a text indicated higher trust scores ($M = 3.13, SD = 0.06$) than those who watched a video ($M = 2.88, SD = 0.06$). The same direction can be found for the dependent variable sincerity. Those who read a text perceived TELO AG as more sincere ($M = 3.04, SD = 0.06$) than those who watched

a video (*M* = 2.78, *SD* = 0.06). Furthermore, the purchase intention of the participants who received a text as stimulus was significantly higher (*M* = 2.30, *SD* = 0.07) than of those who were manipulated with a video (*M* = 2.08, *SD* = 0.7). There was no significant effect found for the dependent variables anger and severity. As an opposite relationship between the variables in line with media richness theory was previously hypothesised, all hypotheses pertaining to the effects of communication medium are rejected. Table 8 shows the scores for communication medium for every dependent variable.

Table 8

Means and standard deviations for communication medium

Dependent variables	Text				Video		
	N	M	SD		N	M	SD
Trust	135	3.13	0.06		139	2.88	0.06
Sincerity	135	3.04	0.06		139	2.78	0.06
Anger	135	2.70	0.07		139	2.71	0.07
Purchase intention	135	2.30	0.07		139	2.08	0.07
Severity	135	3.93	0.06		139	4.00	0.06

Table 9

MANCOVA effects for communication medium

Dependent variables	Sum of sq.	df	Mean sq.	F	Sig.
Trust	4.51	1	4.51	9.11	.003
Sincerity	4.60	1	4.60	10.31	.001
Anger	0.01	1	0.01	0.01	.919
Purchase intention	3.41	1	3.41	5.71	.018
Severity	0.26	1	0.26	0.50	.480

4.2.3 Crisis Communication Framing

The results of a MANCOVA show a significant main effect of crisis communication framing ($F(5,261) = 8.14$, $p < .001$) on trust, sincerity and severity perceptions. Those who received an emotionally framed appeal indicated higher trust scores towards TELO AG ($M = 3.15$, SD $= 0.06$) than those who received the non-emotional message ($M = 2.87$, $SD = 0.06$). Furthermore, sincerity was evaluated higher when participants were manipulated with an emotional frame ($M = 3.12$, $SD = 0.06$) as opposed to a non-emotional frame ($M = 2.71$, $SD = 0.06$). In addition, the framing stimulus was perceived differently in terms of severity. An emotional frame of the crisis communication statement was perceived as more severe ($M = 4.09$, $SD = 0.06$) than a non-emotional frame ($M = 3.83$, $SD = 0.06$). This finding is further discussed in the limitations sections, as it potentially arose due to manipulation issues.

There were no significant main effects found for anger and purchase intention, which leads to the confirmation of hypotheses 3a and 3b. Table 10 shows the means and standard deviations for all dependent variables in relation to crisis communication framing.

Table 10

Means and standard deviations for Crisis Communication Framing

Dependent variables	Emotional Framing			Non-emotional Framing		
	N	M	SD	N	M	SD
Trust	135	3.15	0.06	139	2.87	0.06
Sincerity	135	3.12	0.06	139	2.71	0.06
Anger	135	2.75	0.07	139	2.66	0.07
Purchase intention	135	2.20	0.07	139	2.18	0.07
Severity	135	4.09	0.06	139	3.83	0.06

Table 11

MANCOVA effects for Crisis Communication Framing

Dependent variables	Sum of sq.	df	Mean sq.	F	Sig.
Trust	5.38	1	5.38	10.89	.001
Sincerity	11.62	1	11.62	26.10	.000
Anger	0.50	1	0.50	0.71	.400
Purchase intention	0.04	1	0.04	0.07	.797
Severity	4.71	1	4.71	9.08	.003

## 4.3 Interaction effects of the dependent variables

Research question two pertains to the interaction effects of the three dependent variables, which are examined in the following.

4.3.1 Crisis Communication Framing and Communication Medium

A MANCOVA shows a significant interactional effect of crisis communication framing and communication medium on anger ($F(5,261) = 7.23$, $p = .008$). Those who received an emotional text in the crisis communication scenario reported higher anger towards TELO AG ($M = 2.88$, $SD = 0.10$) than those who received an emotional video ($M = 2.61$, $SD = 0.10$). Contrary, a non-emotional text resulted in lower anger scores ($M = 2.52$, $SD = 0.10$) than a non-emotional video ($M = 2.80$, $SD = 0.10$). This relationship is plotted in figure 3. There were no signification interaction effects found for crisis communication framing and communication medium on the variables trust ($F(5,261) = 0.75$, $p = .39$), sincerity ($F(5,261) = 2.68$, $p = .10$), purchase intention ($F(5,261) = 1.27$, $p = .26$) and severity ($F(5,261) = 0.03$, $p = .90$). The hypotheses pertaining to the interactional effects of crisis communication framing and crisis communication timing (hypothesis 8 and 9) could not be supported.

Figure 3

Interaction effect of crisis communication framing and communication medium on anger
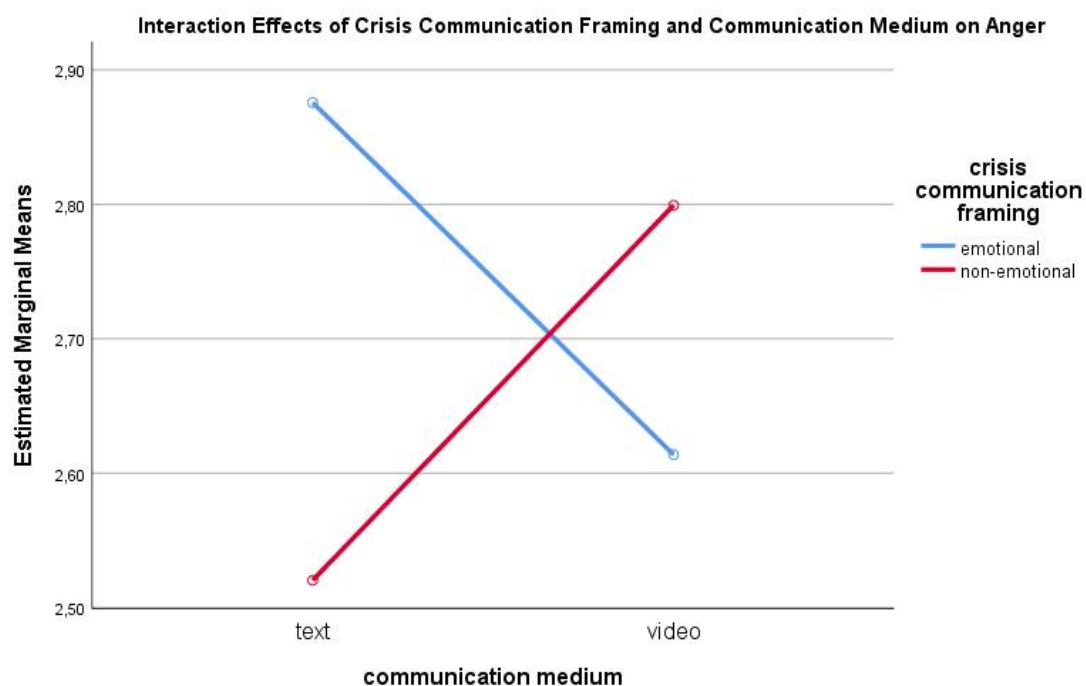
Table 12

Means and standard deviations for Crisis Communication Framing and Communication Medium

Dependent variables		Emotional Framing			Non-emotional Framing		
		N	M	SD	N	M	SD
Trust	Text	135	3.24	0.09	139	3.03	0.09
	Video	135	3.05	0.09	139	2.70	0.08
Sincerity	Text	135	3.18	0.08	139	2.90	0.08
	Video	135	3.05	0.08	139	2.51	0.08
Anger	Text	135	2.88	0.10	139	2.52	0.10
	Video	135	2.61	0.10	139	2.80	0.10
Purchase intention	Text	135	2.26	0.10	139	2.34	0.09
	Video	135	2.14	0.09	139	2.01	0.09

Severity	Text	135	4.07	0.09	139	3.80	0.09
	Video	135	4.12	0.09	139	3.87	0.09

Table 13

MANCOVA effects for Crisis Communication Framing and Communication Medium

Dependent variables	Sum of sq.	df	Mean sq.	F	Sig.
Trust	0.37	1	0.37	0.75	.389
Sincerity	1.19	1	1.19	2.68	.103
Anger	5.08	1	5.08	7.23	.008
Purchase intention	0.76	1	0.76	1.27	.261
Severity	0.02	1	0.02	0.03	.858

4.3.2 Crisis Communication Timing and Crisis Communication Framing

A MANCOVA found no statistically significant interaction effect for crisis communication timing and crisis communication framing on trust ($F(5,261) = 0.98$, $p = .32$), sincerity ($F(5,261) = 2.83$, $p = 0.94$), anger ($F(5,261) = 0.83$, $p = .36$), purchase intention ($F(5,261) = 0.01$, $p = .91$) and severity ($F(5,261) = 0.60$, $p = .44$). The hypotheses (4 and 5) formulated for the interaction effect for crisis communication timing and crisis communication framing are all not supported.

4.3.3 Crisis Communication Timing and Communication Medium

Similarly, there was no significant interaction effect found for crisis communication timing and communication medium on the dependent variables trust ($F(5,261) = 0.04$, $p = .85$), sincerity ($F(5,261) = 0.30$, $p = .59$), anger ($F(5,261) = 1.01$, $p = .32$), purchase intention ($F(5,261) = 0.10$, $p = .76$) and severity ($F(5,261) = 0.68$, $p = .41$). The hypotheses (6 and 7) pertaining to the interaction effect of timing and medium cannot be supported.

4.3.4 Three-way interaction among Crisis Communication Timing and Communication Medium and Crisis Communication Framing

The results of a MANCOVA show no significant interaction effects for crisis communication timing, communication medium and crisis communication framing on trust ($F(5,261) = 2.37$, $p = .13$), sincerity ($F(5,261) = 0.93$, $p = .34$), anger ($F(5,261) = 0.95$, $p = .33$), purchase intention ($F(5,261) = 1.90$, $p = .17$) and severity ($F(5,261) = 0.13$, $p = .72$). Hypothesis 10 and 11, pertaining to the three-way interactional effects is therefore neglected.
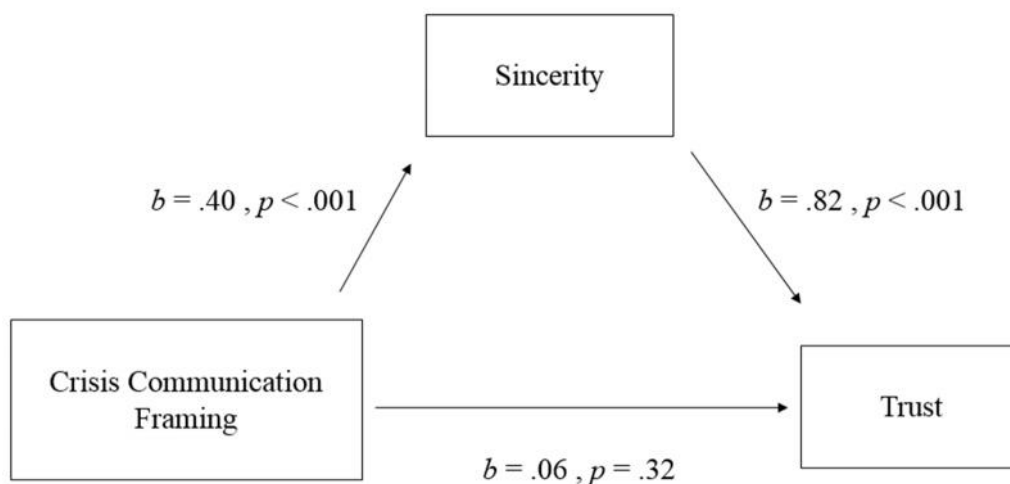
4.4 Mediation analysis

4.4.1 Mediating role of sincerity

As explained in prior sections, it is hypothesised that the perceived sincerity of TELO AG acted as mediator in the relationship between crisis communication framing and the measure trust. Therefore, a simple mediation analysis was conducted using the approach by Preacher and Hayes (2004). The version 3.5.3 of the PROCESS macro extension for SPSS written by Andrew Hayes (2017-2020) was used to investigate the third research question.

The simple mediation analysis revealed a significant indirect effect (b=.3288) of crisis communication framing (emotional) on trust via sincerity: 95%CI = (.4726, .1927). 33% of variation in trust can be explained by the perceived sincerity of the company. Hypothesis 12 can therefore be supported. The coefficients for individual paths (a, b, c') belonging to the relationship between framing and trust can be seen in figure 4.

Figure 4

Simple mediation diagram: mediating effects of sincerity

Table 14

Summary of the tested hypothesis and the respective results

No	Hypothesis	Results
H1	*Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company, (d) will have higher purchase intentions and (e) perceive the crisis as less severe when stealing thunder is used as opposed to thunder.*	Supported: H1a, H1b Not Supported: H1c, H1d, H1e
H2	*Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company, (d) will have higher purchase intentions and (e) perceive the crisis as less severe when the statement is communicated via video as opposed to text.*	Not supported
H3	*Customers will have (a) higher levels of post-crisis trust, (b) will perceive the company as more sincere (c) will report lower levels of anger towards the company, (d) will have higher purchase intentions and (e) perceive the crisis as less severe when an emotional frame is used as opposed to a non-emotional frame.*	Supported: H3a, H3b, H3e Not supported: H3c, H3d
H4	*When a company steals thunder in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when an emotional frame (as opposed to non-emotional) is used.*	Not supported

H5	*When a company does not steal thunder in crisis communication, the choice for a specific framing strategy will not matter*	Not supported
H6	*When a company steals thunder in crisis communication, the use of a specific communication medium (video vs. text) will not matter.*	Not supported
H7	*When a company does not steal thunder in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a video format (as opposed to text) is used.*	Not supported
H8	*When a company uses an emotional framing appeal (as opposed to a non-emotional appeal) in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a video format is used.*	Not supported
H9	*When a company uses a text statement (as opposed to video) in crisis communication, customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when it is framed in an emotional way.*	Not supported
H10	*Customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a stealing thunder timing strategy (as opposed to thunder) regardless of the framing strategy and the medium that are used.*	Not supported
H11	*Customers will have higher levels of (a) post-crisis trust, consider the company as (b) more sincere, will have (c) higher purchase intentions, (d) lower levels of anger and (e) consider the crisis as less severe when a stealing thunder timing strategy (as opposed to thunder) is communicated as a video (as opposed to text) in combination with emotional framing (as opposed to non-emotional framing).*	Not supported
H12	*The more sincerity people attribute to the company, the more trust they will have in the company.*	Supported

5. Discussion

5.1 Discussion of the results

In situations that could evolve into a real crisis, companies can choose to either proactively reveal the problem themselves or wait until others do. Extant research on the topic of crisis communication timing generally agrees that stealing thunder is the most effective way to communicate in a crisis as compared to thunder (e.g., Arpan & Pompper, 2003; Arpan, & Roskos-Ewoldsen, 2005; Huang & DiStaso, 2020). What has not been extensively examined until now is which medium is most appropriate to convey crisis communication messages and how a company should ideally frame such a statement in a specific crisis scenario. This experiment was thus intended to shed light on the effects of crisis communication timing, framing and communication medium on consumer's trust, the perceived sincerity of the company, anger towards the company, the consumer's purchase intention and the perceived severity of the crisis, as anchored in the first research question. In addition, interactional effects of the three independent variables were examined in line with the second research question. A third research question concerned the mediating role of sincerity that is also discussed in the following section. In this context, personal privacy valuation was measured and acted as a control variable. The current sample of German participants displayed a high level of personal privacy valuation, that should be taken into account when discussing the insights of this study.

5.1.1 Crisis Communication Timing

The results of the current experimental study revealed that the use of stealing thunder in a crisis communication statement resulted in higher levels of trust among participants. Customers are more likely to trust a company after the release of a statement where the company proactively reveals the potential threat that could lead to a crisis. In this case TELO AG announced a consumer privacy crisis that was revealed through internal investigations. This is in line with previous studies proving the positive effect of a proactive timing strategy on trust (Fennis &

Stroebe, 2014; Beldad et al., 2018; Huang & DiStaso, 2020). This finding can be explained by the perceived voluntary intent of a company to self-disclose a failure. The company proactively takes responsibility, which might make consumers think more positively about the company in terms of trust. In this case, TELO AG takes the risk of initiating a crisis and therefore puts its own interest beneath the safety of its customers, which links to the findings for sincerity. Stealing thunder in a crisis communication statement led to higher perceptions of the company's sincerity. Customers thus perceive a company as more sincere when a crisis is proactively communicated before another party can claim the first move. This can be due to the perceived heartfelt and genuine intentions the company shows when proactively communicating negative information (Tormala & Petty, 2004). This result highly complies with the findings of Claeys, Cauberghe and Leysen (2013) who found positive effects of an ex-antecrisis timing strategy (stealing thunder) in combination with the emotion sadness on sincerity.

This study found no effects of crisis communication timing on anger towards the company and intentions to purchase services in the future as well as the perceived severity of the crisis. The effects of crisis communication timing on the aforementioned measures did not differ between groups in the case of this specific type of consumer privacy crisis and the privacy-sensitive sample. This finding is contrary to the previously formulated hypotheses and the directions extant research provides so far. Arpan and Roskos-Ewoldsen (2005), for instance found that self-disclosing a crisis leads to a higher purchase intention. The same effect for purchase intention was found by Hegner, Beldad and Hulzink (2018).

5.1.2 Communication Medium
The results of the current study revealed that the choice for a specific communication medium (video vs. text) had a significant effect on trust, sincerity and purchase intention. Contrary to what was expected, the use of a text statement to convey a crisis resulted in higher ratings for

trust, sincerity perceptions of the company and purchase intentions of consumers as opposed to a video statement. These findings challenge the main assumptions of the media richness theory (Daft & Lengel, 1986) stating that the richer a communication medium is, the more effective it might be in reaching the receiver of a message. The video format is seen as richer than text messages, as additional cues such as verbal expressions, nonverbal mimics or face expressions complement the content of the message. The contrary accounts for the findings of the current experiment showing that consumers prefer text messages over video communication when a company conveys crisis-related information. Similar to the results of the current study, Coombs and Holladay (2008) found that a printed crisis communication messages resulted in higher reputation ratings of the company, whereas it is important to mention that they only found small effect sizes. Nevertheless, their findings also show that the prevailing concepts of the media richness theory (Daft & Lengel, 1986) might not always be applicable to specific crisis communication scenarios as in the current research.

One explanation for the directions of findings of this study could be that the videos showed a real person with individual characteristics. Despite a pre-test confirming some characteristics of a typical CEO that was chosen for the video, multiple factors leave room for personal evaluation and the influence of a potential source effect. According to the match-up hypothesis (Brownlow, 1992) the persuasiveness of a message highly depends on the "match" between both sides of a message, thus the similarity or congruency between the receiver and the sender. Additionally, the concepts of similarity, familiarity and likeability of a person as anchored in the source attractiveness model by McGuire (1985) could have led to the downgrading of the video format. Participants might have perceived the speaker as unfamiliar or not likeable and therefore rated the video as less effective. As this study did not measure likeability, attractiveness, similarity or familiarity scores of the speaker, it can only be assumed that possible explanations for the finding lay in the nature of the speaker evaluation and a potential source effect.

5.1.3 Crisis Communication Framing

The current study found main effects of crisis communication framing on trust, sincerity and severity perceptions. The emotional framing of a crisis communication statement in a consumer privacy crisis led to higher trust towards the company. Additionally, consumers perceive a company as more sincere when an emotional appeal was used. This result can be explained by the powerful role of emotions in persuasion processes (Van Kleef, van den Berg & Heerdink, 2015). The right choice to use an emotion such as sadness in crisis communication can help convince customers to regain trust in the company and consider the company as more sincere, whereas the absence of emotions might not elicit the same attitudinal responses in the receiver. How a message is framed in crisis communication can influence how consumers perceive the company (Choi & Lin, 2009). The current study confirms this assumption by revealing the effectiveness of emotional framing when it comes to enhancing sincerity perceptions of the company and in turn trust in the company. This is in line with findings by Huang and DiStaso (2020) who compared an emotional and a rational appeal in crisis communication of a hospital on Facebook and found that the emotional approach resulted in higher trust and higher reputation evaluations of the organisation compared to the rational condition. Contrary to their findings, this study cannot confirm the positive relation between emotional framing and purchase intention, as hypothesised. Instead, no significant effects were found for anger, purchase intention and severity perceptions.

5.1.4 Interaction effect of crisis communication framing and communication medium

As almost no interaction effects were observed, it cannot be concluded which strategy and combination of crisis communication timing, framing and medium is most suitable for this specific type of crisis used as stimulus. Nevertheless, one interaction effect was found for the relation between crisis communication framing and communication medium. Those who received an emotional text in the crisis communication scenario reported higher anger towards

TELO AG than those who received an emotional video. Contrary, a non-emotional text resulted in lower anger scores than a non-emotional video. This could be explained by the higher severity score participants attributed to emotional framing. An emotional stimulus could have elicited higher attributions of anger, as people feel more attacked in terms of their individual well-being which has been shown to elicit anger (Jin, Pang & Cameron, 2007). The emotional text could have triggered this feeling and therefore evoked anger.

However, this finding does not confirm prior assumptions. It was hypothesised that videos with an emotional appeal score higher in terms of trust, sincerity and purchase intention and lower in terms of anger, as the medium video is richer than text and the use of emotions in crisis communication has been found to elicit more favourable intentions (Huang & DiStaso, 2020). Furthermore, it has also been hypothesised that videos using a stealing thunder timing strategy would be perceived more favourably than videos using a thunder strategy as well as their respective counterparts in written form. This study does not reveal evidence for the combination of timing and medium. Nevertheless, the direct effects of these variables already show that the use of textual statements is more effective and the use of a stealing thunder timing appeal also results in more trust and sincerity perceptions.

5.1.5 Mediating role of sincerity

It was hypothesised that sincerity is a mediator for the variable trust. Results confirm this assumption and show that when it comes to message framing, higher levels of sincerity lead to higher levels of trust. As consumers perceive the company's crisis communication message as more sincere, they may be more likely to trust the company after the crisis and purchase their services in the future. The findings by Claeys, Cauberghe and Leysen (2013) confirm the mediating effect of sincerity for the relationship between crisis communication message framing and post-crisis trust when stealing thunder was used. The use of sadness in an ex-

antecrisis timing strategy led to better ratings of the company's post-crisis reputation due to the fact the company was perceived as more sincere.

5.1.6 The role of personal privacy valuation

The current study measured the personal privacy valuation of German participants showing that Germans overall highly value their privacy, which is in line with insights from Krasnova et.al. (2012), who found that high uncertainty avoidance impacted the sensitivity to protect and disclose private information. This high sensitivity with regard to personal data protection is again proven by Kowalewski, Ziefle, Ziegendorf and Wehrle (2015) who found that Germans show a high concern when it comes to the "misuse of their personal data by the operator" (p. 7). These exemplary studies show that culture plays a crucial role in the context and holistic formation of privacy concerns as well as people's attitude towards self-disclosure. It might also be the case the use of a less privacy-sensitive sample would result in different insights. The high concern for privacy could have mitigated the effects of crisis communication measures by TELO AG, that were initially intended to, for instance, decrease anger. How the company communicates in a privacy-related crisis might not matter anymore as consumers are very sensitive in terms of data protection. The privacy valuation of the sample should therefore always be taken into account in relation to the specific crisis type, as it has been shown to matter in the current crisis scenario.

The results of the current study are thus only generalisable to privacy-sensitive consumers. Future research is needed to drive a more nuanced understanding of the relationship between privacy valuation, culture and different crisis types as well as the effects of the different communication elements used in this study. A sample consisting of people from a culture characterised by lower uncertainty avoidance such as the United States could give additional insights because people might not value their privacy as high as Germans do.

5.2 Practical implications

The results of this study show that proactively disclosing crisis information can be beneficial to avoid damage to the reputation of the company. In addition, using a text statement has been shown to receive more favourable evaluations in this specific type of consumer privacy crisis, which needs further investigation in scientific research, as the media richness theory suggests otherwise. Framing a statement in an emotional way can further enhance sincerity perceptions and trust in the company. Based on these findings, companies should pay attention to the strategy they chose when designing crisis communication statements. Even though it might seem counterintuitive to proactively self-disclose a potential threat, it could be worthwhile. Companies should further acknowledge the power of emotions when it comes to persuading people of a good intent. In the case of a crisis, showing sadness about what happened can further improve positive perceptions of the company and increase notions of sincerity.

Even though almost no interactional effects of the different variables have been found, using a stealing thunder strategy, displaying emotions and communicating in written form can reduce damage to the company in a privacy crisis and help regaining trust, a key aspect of organisational reputation. Managers, communication experts and practitioners should therefore be aware of the importance of carefully considering the right choice of strategic elements when designing a crisis communication statement.

5.3 Limitations and future research directions

This study has several limitations that offer directions for future research. First, the statistical analysis revealed possible effects of emotional framing on the perceived severity of the crisis, which could be due to the manipulations of the emotional stimulus materials with emotional markers such as for instance "ausdrücklich". Those markers could have led to different perceptions of the degree of severity of the consumer privacy crisis even though the exact same crisis and content was used for both conditions. Future studies investigating the effects of

framing should pay attention to this issue and pre-test stimulus materials in terms of severity perceptions. In line with this, studies could also include the concept of responsibility attribution in relation to perceived crisis severity as the latter is an essential antecedent in the consumer's perception of crisis responsibility (Kim, Johnson & Park, 2017).

Second, it is crucial to acknowledge the potential influence of source effects on the effectiveness of communication medium. As this experiment did not measure likeability and attractiveness scores of the speaker in the videos, it can only be assumed that a source effect influenced the downgrading of the video format. Future research should pay attention to this aspect to eliminate or measure any potential influences on the perception of the medium to find plausible explanations. Moreover, this study did not include any context for the communication medium. To enhance ecological validity, the materials could have been posted on a social media channel of the company, their website or another channel. In addition, the selection of the communication medium should be explored in more detail to examine whether the effectiveness of a medium depends on for instance the crisis type. Other formats and channels such as live broadcasting could also be taken into account to further study the effects of media richness, as the current study only provides limited insights.

Furthermore, the findings of the study are only limited to one cultural group, namely Germans. Future research endeavours could focus on more than one cultural group, as perceptions and values differ between cultures especially in a corporate context (Hofstede, 2011).

Future research should further examine possible effects of message framing by including affective states of respondents. One framing strategy might not be effective for every target group, as for instance affective oriented people might be more prone towards an emotional appeal (Huang & DiStaso, 2020).

The results of the experiment using a fictious consumer privacy crisis of a fictious company have to be approached with caution, as they might only be applicable to this specific

type of crisis. People might respond differently in an actual and real crisis and in different crisis situations. The findings and implications that were derived might therefore only be applicable to the specific scenario that was used in the current study. As this study used a fictional company, the multidimensionality of corporate reputation could not be fully measured. Further research in the field of crisis communication could focus on existing companies and take into account the pre-crisis reputation including pre-existing encounters with the company and include these aspects in the manipulations of the scenarios to more adequately examine corporate reputation and enhance ecological validity. This could also enable researchers to measure actual behavioural and attitudinal intentions towards the company before and after the crisis.

6. Conclusion

How an appropriate crisis response statement looks like is unclear and lacking in research. The current study added to the existing corpus of research by once again confirming the positive effects of proactively self-revealing a potential crisis. It provides a more nuanced understanding of the components framing and communication medium that have to be considered when designing a crisis statement. Managers should consider the multidimensionality of crisis communication and the variety of tools that could help reduce damage to the company or regain trust. The use of emotional framing and text statements as well as the timing strategy stealing thunder benefit the company in terms of sincerity perceptions and regaining trust in a consumer privacy crisis, but have to be adapted in accordance with the specific crisis situation at hand.

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8. Appendix

Appendix A

Stimulus material scenario 1-4 Screenshot of the videos

Appendix B

Stimulus material scenario 5: text, stealing thunder, non-emotional

Stimulus material scenario 6: text, stealing thunder, emotional

telo

Wir müssen Ihnen leider mitteilen, dass durch interne Untersuchungen Missstände im Datensystem und ein Datenleck entdeckt wurden. Daten von circa 8.000 Kunden wurden an Dritte weitergeben, darunter auch Passwort- und Kreditkarteninformationen.

Wir sind zutiefst bestürzt über den Vorfall und haben bereits weitere Untersuchungen veranlasst und setzen alles daran, unsere Kunden zu schützen. Wir bedauern außerordentlich, das Vertrauen unserer Kunden zu enttäuschen und wir werden den Vorfall restlos aufklären und Konsequenzen ziehen.

Wir, Firma TELO, stehen weiterhin für beste Serviceleistungen und werden das Datenproblem schnellstmöglich lösen und uns mit Betroffenen in Verbindung setzen, um größtmögliche Transparenz zu schaffen. Wir empfehlen Ihnen, Ihr Passwort regelmäßig zu ändern. Datensicherheit wird bei uns großgeschrieben und wir entschuldigen uns ausdrücklich für den Vorfall bei allen Betroffenen.

Christian Müller
Geschäftsführer TELO AG

Stimulus material scenario 7: text, thunder, non-emotional

telo

Zahlreiche Presseberichte haben bereits über das Datenleck bei TELO berichtet. Daten von circa 8.000 Kunden wurden an Dritte weitergeben, darunter auch Passwort- und Kreditkarteninformationen.

Weitere Untersuchungen wurden seitens der Firma bereits veranlasst, um Kunden zu schützen. Der Vorfall wird restlos aufgeklärt und Konsequenzen gezogen.

Die Firma TELO steht weiterhin für beste Serviceleistungen und wird das Datenproblem schnellstmöglich lösen und sich mit Betroffenen in Verbindung setzen, um Transparenz zu schaffen. Firma TELO empfiehlt Ihnen, ihr Passwort regelmäßig zu ändern. Datensicherheit steht bei TELO an erster Stelle und die Firma entschuldigt sich bei allen Betroffenen.

Christian Müller
Geschäftsführer TELO AG

Stimulus material scenario 8: text, thunder, emotional

telo

Zahlreiche Presseberichte haben bereits über unser Datenleck berichtet. Daten von circa 8.000 Kunden wurden an Dritte weitergeben, darunter auch Passwort- und Kreditkarteninformationen.

Wir sind zutiefst bestürzt über den Vorfall und haben bereits weitere Untersuchungen veranlasst und setzen alles daran, unsere Kunden zu schützen. Wir bedauern außerordentlich, das Vertrauen unserer Kunden enttäuscht zu haben und wir werden den Vorfall restlos aufklären und Konsequenzen ziehen.

Wir, Firma TELO, stehen weiterhin für beste Serviceleistungen und werden das Datenproblem schnellstmöglich lösen und uns mit Betroffenen in Verbindung setzen, um größtmögliche Transparenz zu schaffen. Wir empfehlen Ihnen, ihr Passwort regelmäßig zu ändern. Datensicherheit wird bei uns großgeschrieben und wir entschuldigen uns ausdrücklich für den Vorfall bei allen Betroffenen.

Christian Müller

Geschäftsführer TELO AG

Appendix B

German questionnaire (Qualtrics)

Q26

Liebe/r Teilnehmer/in,

Danke, dass Du dir Zeit für meine Studie nimmst. Der folgende Fragebogen bezieht sich auf ein Experiment, das ich im Rahmen meiner Masterarbeit für mein Studium *Digital Marketing Communication* an der Universität Twente durchführe. Ziel der Studie ist es, Strategien der Krisenkommunikation besser zu verstehen.

Das Ausfüllen der Fragen wird circa 10 Minuten dauern. Ich bitte Dich, alle Fragen genau zu lesen und die präsentierte Nachricht aufmerksam anzuschauen. Außerdem wirst du gebeten, einige anonyme Angaben zu deiner Person zu machen.

Die Erfassung der Daten und deren Analyse erfolgt anonym und vertraulich. Die Ergebnisse werden ausschließlich für diese Studie verwendet. Du hast das Recht, die Studie jederzeit abzubrechen, deine Angaben sind dann ungültig.

Vielen Dank für die Teilnahme. Bei Fragen stehe ich gerne zur Verfügung.

Vera Bielefeld
v.bielefeld@student.utwente.nl

○ Ich stimme zu und möchte mit der Studie beginnen.

○ Ich stimme nicht zu und möchte nicht teilnehmen.

▼ Demographics

Q17

Alter

| 18 | ⌄ |

Q18

Geschlecht

○ Weiblich

○ Männlich

○ Divers

Q19

Höchster Bildungsabschluss

○ Kein Schulabschluss
○ Grund-/Hauptschulabschluss
○ Realschule (Mittlere Reife)
○ Gymnasium (Abitur)
○ Abgeschlossene Ausbildung
○ Fachhochschulabschluss
○ Bachelor
○ Master
○ Diplom
○ Promotion

Q20

Nationalität

○ Deutsch
○ eine andere

Q21

Bitte beantworte die folgenden Fragen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Es ist mir wichtig, Kontrolle über die Nutzung meiner persönlichen Daten zu haben.	○	○	○	○	○
Es ist mir wichtig, dass ich selbst bestimmen kann, wer Zugang zu meinen persönlichen Daten haben sollte.	○	○	○	○	○
Ich bin davon überzeugt, dass meine Privatsphäre respektiert und geschützt werden sollte.	○	○	○	○	○

▼ Vorstellung der TELO AG

Q22

Bitte lies folgende Einleitung aufmerksam:

Die Firma TELO AG ist ein großes deutsches Telekommunikationsunternehmen. Sie bieten Dienstleistungen für Kunden in ganz Deutschland an. Dazu gehören unter anderem Telefonie- und Internetprodukte, Breitbandinfrastruktur und Festnetzanschlüsse.

Du siehst nun eine Mitteilung der TELO AG. Bitte studiere diese aufmerksam und beantworte danach ein paar Fragen.

Q25

Klicke, um das Video abzuspielen. Schaue dir das Video aufmerksam an.
Video der TELO AG

Comprehension Check

Q27

In welcher Art von Krise ist die TELO AG involviert?

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die TELO AG ist in ein Datenleck involviert.	○	○	○	○	○
Die TELO AG ist in einen Produktrückruf involviert.	○	○	○	○	○
Die TELO AG ist in eine Verbraucherdatenschutz Krise involviert.	○	○	○	○	○
Die TELO AG ist in ein Produktdefekt involviert.	○	○	○	○	○

Manipulation Check

Q14

Wie wurde die Krise von der TELO AG kommuniziert?

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die Krise wurde als Text kommuniziert.	○	○	○	○	○
Die Krise wurde als Video kommuniziert.	○	○	○	○	○
Die Krise wurde verbal kommuniziert.	○	○	○	○	○
Die Krise wurde schriftlich kommuniziert.	○	○	○	○	○

Q15

Wie wurde die Krise von der TELO AG kommuniziert?

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die TELO AG war sehr emotional.	○	○	○	○	○
Die TELO AG hat Emotionen gezeigt.	○	○	○	○	○
Die TELO AG war nicht emotional.	○	○	○	○	○
Die TELO AG hat keine Emotionen gezeigt.	○	○	○	○	○

Q16

Wer hat Informationen über die Krise als erstes veröffentlicht?

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die TELO AG ist die erste, die Informationen über die Krise veröffentlicht.	○	○	○	○	○
Die TELO AG ist nicht die erste, die Informationen über die Krise veröffentlicht.	○	○	○	○	○
Die TELO AG hat proaktiv, durch interne Ermittlungen Informationen über die Krise veröffentlicht.	○	○	○	○	○
Die TELO AG hat auf Presseberichte über die Krise reagiert.	○	○	○	○	○

Sincerity

Q26

Nachdem du die Erklärung gesehen hast, bewerte folgende Aussagen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die Erklärung der TELO AG ist aufrichtig.	○	○	○	○	○
Die Erklärung der TELO AG ist bewegend.	○	○	○	○	○
Die Erklärung der TELO AG ist zuverlässig.	○	○	○	○	○
Die Erklärung der TELO AG ist offen.	○	○	○	○	○
Die Erklärung der TELO AG klingt authentisch.	○	○	○	○	○
Die Erklärung der TELO AG kommt von Herzen.	○	○	○	○	○
Die TELO AG klingt ernsthaft in ihrer Aussage.	○	○	○	○	○

Trust

Q28

Nachdem du die Erklärung gesehen hast, bewerte folgende Aussagen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass die Firma fähig ist, die Krise zu meistern.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass die Firma weiß, was zu tun ist.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich zuversichtlich über die Fähigkeiten der Firma, richtig in der Krise zu handeln.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass die Firma besorgt ist um mein Wohlbefinden.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass meine Wünsche und Bedürfnisse wichtig für die Firma sind.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass die Firma mir nicht wissentlich schaden würde.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass die Firma einen starken Gerechtigkeitssinn hat.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich sicher, dass die Firma zu ihrem Wort steht.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, denke ich, dass das Handeln der Firma auf soliden Grundsätzen beruht.	○	○	○	○	○

▾ Anger

Q29

Nachdem du die Erklärung gesehen hast, bewerte bitte folgende Aussagen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich wütend.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich genervt.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich angewidert.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, bin ich aufgebracht.	○	○	○	○	○

Purchase intention

Q30

Nachdem du die Erklärung gesehen hast, bewerte bitte folgende Aussagen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Nachdem ich die Erklärung der TELO AG gesehen habe, werde ich in Zukunft Dienstleistungen der Firma kaufen.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, ist die Wahrscheinlichkeit hoch, dass ich Dienstleistungen der Firma kaufe.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, kann ich mir vorstellen, Dienstleistungen der Firma zu kaufen.	○	○	○	○	○
Nachdem ich die Erklärung der TELO AG gesehen habe, sehe ich kein Problem darin, Dienstleistungen der Fima in Zukunft zu kaufen.	○	○	○	○	○

Severity

Q30

Nachdem du die Erklärung gesehen hast, bewerte bitte folgende Aussagen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Teils/Teils	Stimme zu	Stimme völlig zu
Die Krise, in der die TELO AG steckt, ist ernst.	○	○	○	○	○
Die Krise, in der die TELO AG steckt, ist schlimm.	○	○	○	○	○
Die Krise, in der die TELO AG steckt, hat schwerwiegende Konsequenzen.	○	○	○	○	○

End of Survey

Danke für deine Teilnahme. Die Firma TELO und die Krise sind frei erfunden.

End of Survey

Danke für deine Teilnahme. Die Firma TELO und die Krise sind frei erfunden.

Appendix C

English translation of the questionnaire

Introduction

Dear participant,

Thank you for taking the time to participate in my study. The following questionnaire is an experiment that I am conducting in the context of my Master Thesis for my study programme Digital Marketing Communication at the University of Twente. The aim of the study is to better understand crisis communication strategies.

Participating in the study will approximately take 10 minutes. Please read all question carefully and also pay close attention to the presented statement. You will be asked to fill in some personal information that is completely anonymous.

The data collection and analysis are completely confidential and anonymous. The results are only used for the purposes of this study and you have the right to opt out at any time. Your answers are then invalid.

Thank you for your participation. If you have any question, do not hesitate to contact me.

Vera Bielefeld

v.bielefeld@student.utwente.nl

Demographic questions

1. Age
2. Gender
3. Level of education
4. Nationality

Privacy valuation

1. I find it important to have control over the use of my personal information.
2. I find it important that I can determine who should have access to my personal information.
3. I am convinced that my information privacy should be respected and protected.

Stimulus material

Please read the following introduction carefully.

TELO AG is a German company providing telecommunication services to private customers. Among their services are fixed line connections, broadband infrastructure and mobile communications.

In the following you will see a statement from TELO AG. Please listen/read carefully and answer the questions.

Comprehensibil ity Check

1. In which kind of crisis is TELO AG involved? (Rate from strongly disagree to strongly agree)
    a. TELO AG is involved in a data leak crisis.
    b. TELO AG is involved in a product recall.
    c. TELO AG is involved in a consumer privacy crisis.
    d. TELO AG is involved in a product-harm crisis.

Manipulation Check

1. How was the crisis message communicated?
    a. The crisis was communicated via text.
    b. The crisis was communicated via video.
    c. The crisis was communicated verbally.
    d. The crisis was communicated in written form.

2. How did TELO AG frame the crisis communication message?
    a. TELO AG was very emotional about the crisis.
    b. TELO AG showed emotions.
    c. TELO AG was not emotional about the crisis.
    d. TELO AG did not show emotions.

3. Who published the information about the crisis first?
    a. TELO AG was the first to publish information about the crisis.
    b. TELO AG was not the first to publish information about the crisis.
    c. TELO AG proactively revealed information about the crisis.
    d. TELO AG reacted to several press articles mentioning the crisis.

Sincerity

1. The statement from TELO AG is sincere.
2. The statement from TELO AG is moving.
3. The statement from TELO AG is reliable.
4. The statement from TELO AG is candid.
5. The statement from TELO sounds authentic.
6. The statement from TELO is heartfelt.
7. TELO sounds genuine in its response.

Trust

Ability

1. TELO AG is capable of handling the crisis.
2. TELO AG has enough knowledge about the work that needs to be done.
3. I feel very confident about TELO AG's skills to act right in the crisis.

Benevolence

1. TELO AG is very concerned about my welfare.
2. My needs and desires are very important to TELO AG.

3. TELO AG would not knowingly do anything to hurt me.

Integrity

1. TELO AG has a strong sense of justice.
2. I never have to wonder whether TELO AG will stick to its word.
3. Sound principles seem to guide the actions of TELO AG.

Anger

1. When I think about TELO AG, I feel angry.
2. When I think about TELO AG, I feel annoyed.
3. When I think about TELO AG, I feel disgusted
4. When I think about TELO AG, I feel outraged.

Purchase intention

1. I will buy services from the TELO AG in the future.
2. The probability of buying services from TELO AG is high.
3. I could imagine buying services from TELO.
4. I do not see a problem in purchasing services from TELO in the future.

Severity

1. The crisis experienced by TELO is serious.
2. The crisis experienced by TELO is bad.
3. The crisis experienced by TELO has severe consequences.

End of survey

Thank you for your participation. The company TELO AG and the crisis are completely fictional.

Statutory Declaration

I declare that I have authored this Master thesis independently, that I have not used other than

the declared sources/resources, and that I have explicitly marked all material which has been

quoted either literally or by content from the used sources.

Hoya, 23.06.2021   Vera Bielefeld