

## MASTER THESIS

# Communicating Regrets in Product Harm Crisis: The Effect of Brand Crisis Type, Communicated Emotions, and Message Source on stakeholder behaviour outcomes

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Master Thesis

January 31, 2021

## **Abstract**

A brand crisis event has the potential to negatively affect stakeholders' emotions, brand trust, and purchase intentions. As a result, stakeholders of the organization in crisis look for information on what has occurred and who is to blame. Past studies have shown that the type of crisis, the crisis message source, and the emotions that are communicated to the stakeholders during a brand crisis have a significant impact on the stakeholders' post-crisis behaviors. However, studies in this domain are very limited, warranting the need for further investigations. Therefore, the primary goal of this paper was to examine the extent to which brand crisis type, communicated emotions, and message source influence stakeholders' emotions, brand trust, and purchase intentions. This study also considered the mediating roles of stakeholders' brand trust. A total of 192 English-speaking students taking their course at a Dutch University participated in this study. A 2 (Brand Crisis type: technical-error vs human-error) x 2 (communicated emotions: regret vs no emotion) x 2 (message source: CEO vs general company spokesperson) between-subject design was used to achieve the study objectives. A MANOVA revealed that product harm crisis negatively affects stakeholders' post-crisis behaviors. This effect was stronger for the human-error crisis than the technical-error product-harm crisis. Expressing regret during a product harm crisis positively influenced stakeholders' emotions, brand trust, and purchase intentions. Also, using a CEO as a spokesperson during a product harm crisis proved to be successful. Additionally, the combination of CEO expressing regret in a technical-error product harm crisis resulted in positive post-crisis behaviors. Stakeholders' brand trust mediated the effects on purchase intentions. The study's findings have practical implications, including that crisis communication should always be approached holistically, and that companies or brands must choose the appropriate crisis communication strategy for the type of crisis they are dealing with.

*Keywords: brand crisis type, product-harm, technical-error, human-error, communicated emotions, brand trust, stakeholders' emotions*

## Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Theoretical Framework.....</b>	<b>4</b>
<b>2.1 Brand Crisis: Impact on Stakeholders' Emotions, Brand Trust, and Purchase Intentions.....</b>	<b>4</b>
2.1.1 Stakeholders' Emotions.....	4
2.1.2 Brand Trust.....	5
2.1.3 Purchase Intentions.....	6
<b>2.2 Brand Crisis Type.....</b>	<b>6</b>
2.2.1 Effect of Brand Crisis Type.....	8
<b>2.3 Emotional Crisis Communication.....</b>	<b>9</b>
2.3.1 Effect of Communicating Regret.....	10
<b>2.4 Message Source.....</b>	<b>11</b>
2.4.1 Effect of Message Source.....	12
<b>2.5 Communicated Emotion and Brand Crisis Type.....</b>	<b>13</b>
<b>2.6 Communicated Emotion and Message Source.....</b>	<b>14</b>
<b>2.7 Brand Crisis Type and Message Source.....</b>	<b>15</b>
<b>2.8 Three-way Interaction: Communicated emotion and Brand Crisis Type and Message Source.....</b>	<b>Error! Bookmark not defined.</b>
<b>2.9 Mediation: Stakeholders' Emotions, Brand Trust, and Purchase Intentions....</b>	<b>17</b>
<b>2.9 Conceptual Model.....</b>	<b>17</b>
<b>3. Method.....</b>	<b>18</b>
<b>3.1 Research Design and Procedure.....</b>	<b>18</b>
<b>3.2 Pre-Test.....</b>	<b>19</b>
<b>3.3 Experimental Materials.....</b>	<b>19</b>
<b>3.4 Manipulation.....</b>	<b>24</b>
3.4.1 Manipulation Check.....	30
<b>3.5 Respondents.....</b>	<b>25</b>
<b>3.5 Dependent Measures.....</b>	<b>27</b>
3.5.1 Brand Trust.....	27
3.5.2 Purchase Intentions.....	28
3.5.3 Stakeholders' Emotion.....	28
3.5.4 Validity of Dependent Measures.....	28
<b>4. Results.....</b>	<b>30</b>
<b>4.1 Correlations Analysis.....</b>	<b>31</b>

<b>4.2 Main Effects of Brand Crisis Type, Message Source, and Communicated Emotions .....</b>	<b>32</b>
4.2.1 Brand Crisis Type.....	32
4.2.2 Communicated Emotions .....	33
4.2.3 Message Source .....	34
<b>4.3 Interaction Effects of the Three Independent Variables .....</b>	<b>35</b>
4.3.1 Communicated Emotion and Brand Crisis Type .....	36
4.3.2 Communicated Emotion and Message Source .....	36
4.3.3 Brand Crisis Type and Message Source .....	39
<b>4.4 Three-way Interaction: Communicated Emotions and Brand Crisis Type and Message Source .....</b>	<b>Error! Bookmark not defined.</b>
<b>5. Discussion of Findings .....</b>	<b>44</b>
5.1 Brand Crisis Type.....	44
5.2 Communicated Emotions.....	46
5.3 Message Source .....	47
5.4 Interaction Effect: Communicated Emotions and Crisis Type .....	48
5.5 Interaction Effect: Communicated Emotions and Message Source .....	48
5.6 Brand Crisis Type and Message Source .....	49
5.7 Communicated Emotions, Brand Crisis Type, and Message Source.....	Error! Bookmark not defined.
5.9 Mediating Role of Stakeholders' emotions and Brand Trust.....	50
5.10 Practical Implications of the Study .....	51
5.11 Suggestion for future studies .....	52
<b>6. Conclusion .....</b>	<b>53</b>
<b>7. Appendix.....</b>	<b>Error! Bookmark not defined.</b>
<b>8. Reference.....</b>	<b>54</b>
<b>9. Appendix.....</b>	<b>64</b>

## **1. Introduction**

Brand crises are unexpected events that have the potential to negatively affect stakeholders' emotions (Weiner, 1985; Weiner et al., 1987; Coombs, 2004; Coombs, 2007b), brand trust (Yannopoulou et al., 2011; Laufer et al., 2018), and purchase intentions towards the brand (Hegner et al., 2016; Toklu & Kucuk, 2016). The uncertainty and negative outcomes associated with brand crisis create emotional experiences for both the brand or organization and its stakeholders (van der Meer & Verhoeven, 2014). As a result, when an organization is in a crisis, its stakeholders become eager for information to help them make sense about what has just happened (Coombs, 2007b; Wang, 2016), and who is to blame for the crisis.

Emotions serve as a critical stimulus in the publics' interpretation of what is going on ((Lazarus, 1991; Jin et al., 2007). According to Frijda and Mesquita (1994), organizations communicate emotions about a crisis event to provide stakeholders with direct information for evaluating the organization or brand. The communicated emotions then influence the stakeholders' interpretation of the crisis event, and their post-crisis behavior (van der Meer & Verhoeven, 2014; Utz et al., 2013). Until now, what is known is that only fewer studies (e.g., Wesseling et al., 2007; Kim & Cameron, 2011; van der Meer & Verhoeven, 2014) have examined the influence of integrating emotions in crisis messages on stakeholders' post-crisis behavior during a product harm crisis. For example, Wesseling et al. (2007) found that the expression of regrets when the organization has high crisis responsibility, helps organizations to mitigate the negative effect of the crisis. However, these few studies do not provide a sufficient basis for understanding the influence of communicating emotions in a product harm crisis. Therefore, the current paper seeks to investigate the effect of communicating emotions in a product harm crisis on stakeholders' post-crisis behaviors.

Further, several crisis communications studies have confirmed that stakeholders' post-crisis behaviors towards the organization or brand may be influenced by the type of crisis (e.g.,

Hegner et al., 2016; Coombs & Holladay, 2005; Coombs, 2007b; McDonald et al., 2010; Cleeren et al., 2017; Klein & Dawar, 2004; Dawar & Pillutla, 2000; Hegner et al., 2018). The crisis type, which is defined as the way a crisis is framed or presented (Coombs, 2007b), provides stakeholders with clues that help them to make sense of the crisis that has occurred. This implies that when a crisis occurs, stakeholders evaluate the organization's responsibility leading to the crisis and that informs their post-crisis behavior. If an organization's negligence caused the crisis – as in human-error product harm crisis – it will lead to more unfavorable stakeholder post-crisis behaviors (Coombs, 2007b; Claeys et al., 2010; An et al., 2011; Hegner et al., 2018; Cleeren et al., 2017). However, if the organization's role in the crisis were not intentional – as in the case of technical-error product harm crisis – the stakeholders will express minimal negative post-crisis behaviors (Dawar & Pillutla, 2000; Coombs & Holladay, 2002, Coombs, 2007b; Claeys et al., 2010; An et al., 2011; Hegner et al., 2016; Coombs & Holladay, 2005; McDonald et al., 2010). Although, product harm crisis has been identified as the most prevalent brand crisis type both in the business world and in crisis communication literature (Cleeren et al. (2017), studies investigating the different types of product harm crises do not yet exist. Therefore, the effect of brand crisis type on stakeholders' post-crisis behavior outcomes was considered for this paper.

Furthermore, past studies have also found a link between the message source and stakeholders' post-crisis behaviors (van der Meer & Jin, 2019; Coombs & Holladay, 2005). The messages source are the entities that communicate about the crisis to the stakeholders. When a crisis occurs, message sources are also expected to be present and well-informed about the issue (Boin et al., 2016) to help stakeholders in the crisis sensemaking. Recent evidence within this domain suggests that CEOs acting as spokespersons for a brand or organization are likely to be perceived positively during the crisis which also influences stakeholders' behaviors (e.g., Kim & Park, 2017; Lariscy, 2012). However, studies investigating the role of a spokesperson in

product harm crisis are very limited. The existing studies do not show conclusively that using a CEO works better than using a general company spokesperson. It could be possible that there is a difference in stakeholders' post-crisis behavior if the crisis message is delivered by CEOs compared to when delivered by other company spokespersons (e.g., PR managers). Again, there is not much evidence in crisis communication literature to show that these differences exist for all crisis types. One may also ask if it makes a difference if emotional crisis messages are delivered by the CEO or by a general company spokesperson. These gaps warrant the need for further investigations.

The value of these studies goes beyond demonstrating the existence of an impact on stakeholders' emotions, brand trust, and purchase intentions to include providing organizations with the necessary tools to effectively manage product harm crisis periods and minimize their negative effects. In academia, this study is the first to study the three independent variables together in single research. To achieve the goals of this study the following research questions were proposed:

*RQ1: To what extent do the communicated emotions, brand crisis type, and message source influence purchase intention, brand trust, and emotions of stakeholders?*

*RQ2: To what extent do the communicated emotions interact with brand crisis type to influence emotions of stakeholders, brand trust, message source, and purchase intentions?*

*RQ3: To what extent do the communicated emotions interact with the message source to influence the emotions of stakeholders, brand trust, message source, and purchase intentions?*

*RQ4: To what extent does the message source interact with brand crisis type to influence the emotions of stakeholders, brand trust, message source, and purchase intentions?*

*RQ5: To what extent are the effects of communicated emotion, brand crisis type, and message source on purchase intentions mediated by brand trust?*

## **2. Theoretical Framework**

### **2.1 Brand Crisis: Impact on Stakeholders' Emotions, Brand Trust, and Purchase**

#### **Intentions**

A crisis is "a sudden and unexpected event that threatens to disrupt an organization's operations and poses both a financial and reputational threat" (Coombs, 2007b, p. 164). According to Coombs (2007b), a crisis can harm stakeholders psychologically, emotionally, or financially. Fearn-Banks (1996) states that a crisis is a major event with a potentially negative outcome that affects an organization, company, or industry, as well as its public, products, services, and reputation. Brand crises can negatively impact stakeholders' behavior outcomes such as brand trust, purchase intentions, and emotions. Regardless of the cause of the crisis, no organization or brand can avoid it for long. According to a previous study, many crises are viewed as smoldering phenomena linked to problems and risks that finally explode into major catastrophes (Yannopoulou et al. 2011).

#### **2.1.1 Stakeholders' Emotions**

The uncertainty and negative outcomes associated with brand crisis trigger different emotional reactions from the stakeholders of the organizations in crisis. These emotions serve as a critical stimulus for the stakeholders' interpretation of what is going on (Lazarus, 1991; Jin et al., 2007), and who is to blame for the crisis. Coombs (2007b) identified anger and sympathy as the main emotions of the attribution theory. For example, stakeholders who perceive that an organization or brand has high attribution of crisis responsibility will experience negative emotions such as anger (Weiner, 1985; Weiner et al., 1987; Coombs, 2004). Negative emotions can negatively influence the way stakeholders interact with a brand or an organization after a crisis occurs (Coombs & Holladay, 2004). Likewise, when individuals perceive that a brand or an organization has low attribution of crisis responsibility, they will experience positive emotions such as sympathy. The positive emotions then influence behavior intentions or desired



actions (Weiner, 2005; Coombs, 2007b). Thus, emotions have been studied in crisis communication literature both as the outcome of attribution of crisis responsibility and as an intervening variable that influences stakeholders' post-crisis behaviors. In this study, the role of stakeholders' emotions both as a dependent variable was explored.

### 2.1.2 Brand Trust

There has been a lot of interest in the role of trust in the crisis communication literature (e.g., Mayer et al., 1995; Yannopoulou et al. 2011, Hegner et al., 2016; Hegner & Jevons, 2016, Beldad et al., 2017). An initial impression of existing literature suggests that “confident expectations and risk” are the necessary condition for the development and survival of trust. (Munuera-Aleman et al., 2003) referred to brand trust as the “confident expectations of the brand's reliability and intentions in situation entailing risk to the consumer” (p. 37). Thus, brand trust occurs when consumers perceive a brand as having credibility, integrity, and benevolence (Chiu, 2016; Hegner & Jevons, 2016). Usually, consumers purchase products from brands that they trust. They usually do not know the sources of the raw components of the product, yet trust that the brand or organization will guarantee the product's safety. Brand crisis creates the condition for stakeholders' confidence in the brand or organization to be undermined (Webb, 1996; Coombs, 2006). Brand crises have the potential to destroy a brand's long-standing positive consumer perceptions (Klein & Dawar, 2004). Regardless of the reality of the brand-undermining allegations, these crises might have a detrimental impact on customers' opinions and preferences toward the brand, as well as inflict significant harm to brand equity (Park & Lee, 2013). Brand trust is eroded as a result of such crises, and brand switching becomes highly inevitable (Dawar & Pillutla, 2000). Brand trust was therefore considered in this paper as a likely stakeholder behavior outcome variable and a mediating variable.

### 2.1.3 Purchase Intentions

Purchase intentions refer to the willingness to buy a particular product or service (Mansor & KaderAli, 2017). In crisis communication literature, purchase intention has been described as the likelihood that stakeholders will buy the affected brand's product or services (Coombs & Holladay, 2007). Crises have the potential to negatively affect stakeholders' post-crisis intentions to buy products or services offered by the brand or organizations. Stakeholders who perceive that a certain brand or organization did not act responsibly to protect them may have lower purchase intentions (e.g., Coombs & Holladay, 2007; Coombs, 2007b; Hegner et al., 2018; Beldad et al., 2018). Those who perceive that the action of the organization or brand leading to the crises was not intentional will have favorable purchase intentions. Higher purchase intentions indicate that stakeholders have a higher disposition of purchasing the affected brand or product (Dodds et al., 1991), and vice versa. Purchase intention was therefore included in this paper as a behavior outcome variable to broaden the understanding of the impact of brand crises in crisis communication.

## 2.2 Brand Crisis Type

The crisis type, which is defined as how the crisis is presented (Coombs, 2007b), gives clues that indicate how stakeholders evaluate a crisis-affected business (Coombs and Holladay, 2002). Literature on crisis communication has identified product-harm crisis as the most dominant type of crisis faced by most brands or organizations (e.g., Klein & Dawar, 2004; Dawar & Pillutla, 2000; Hegner et al., 2018). A product-harm crisis happens when a product fails to fulfill specific safety criteria (which has been adopted by an organization or specified by law) or has a flaw that might cause significant harm to customers (Laufer & Coombs, 2006).

Product-harm crisis does not only pose the biggest threat to the equity and reputation of an organization or brand; they are also hazardous to the consumers (Cleeren et al., 2017; Klein & Dawar, 2004; Dawar & Pillutla, 2000; Hegner et al., 2018). Well-documented instances include the Samsung Galaxy Note 7 that can catch fire when charging<sup>1</sup>, and the unexpected acceleration problem of Toyota which resulted in the deaths of 89 people<sup>2</sup>. Thus, a product-harm crisis can create negative emotional experiences for the stakeholders who may, in turn, react negatively towards the brand or the organization after the crisis has occurred. As a result, most organizations or brands struggle with the most appropriate way to deal with the crisis to reduce the negative outcomes of the product harm crisis. This implies that the intention to empirically investigate the effect of the product harm crisis on brands or organizations to broaden crisis managers' understanding in dealing with this type of crisis is very timely.

Coombs (2007b) identified two main types of product-harm crisis; 'technical-error product harm' and 'human-error product harm' crisis. The technical-error and human-error product harm crisis fall within the accidental and preventable clusters respectively (see, Coombs, 2007b, p. 168). A technical-error product harm crisis occurs when the failure of industrial equipment or technology results in the product being recalled or withdrawn from the market. It means that the "cause of the accident was beyond the organization" (Coombs & Holladay, 2006, p. 127). For example, a technical error resulted in the costly recall of all Samsung note 7 from the market due to multiple cases of explosions. In that case, attribution of responsibility by stakeholders may be minor because the organization's actions that resulted in the disaster were not deliberate. In that case, the stakeholders will express minimal negative emotions and have favorable purchase intentions and brand trust (Dawar & Pillutla, 2000;

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<sup>1</sup> [https://www.washingtonpost.com/business/how-samsung-moved-beyond-its-exploding-phones/2018/02/23/5675632c-182f-11e8-b681-2d4d462a1921\\_story.html](https://www.washingtonpost.com/business/how-samsung-moved-beyond-its-exploding-phones/2018/02/23/5675632c-182f-11e8-b681-2d4d462a1921_story.html)

<sup>2</sup> <https://www.cbsnews.com/news/toyota-unintended-acceleration-has-killed-89/>

Coombs & Holladay, 2002, Coombs, 2007b; Claeys et al., 2010; An et al., 2011; Hegner et al., 2016; Coombs & Holladay, 2005; McDonald et al., 2010).

On the other hand, a human error product harm crisis happens when a human error results in the product being recalled from the market. Coombs (2007b) added that in such crises, stakeholders will be more inclined to blame the organization because it willfully placed people's lives in danger or did specific improper activities that led to the crisis. As a result, stakeholders will express more negative emotions towards the brand or organization which will also influence their purchase intentions and brand trust (Coombs, 2007b; Claeys et al., 2010; An et al., 2011; Hegner et al., 2018; Cleeren et al., 2017).

### 2.2.1 Effect of Brand Crisis Type

When a company's reputation moves from positive to negative, stakeholders' interactions with the company might change. Yannopoulou et al. (2011) demonstrated a link between the type of crisis and brand trust. Their findings confirmed that stakeholders' post-crisis brand trust was determined by the way crises are framed in the media. Also, Hegner et al. (2018) found a relationship between crisis type and brand trust and post-crisis purchase intentions. They found experimental evidence that product-harm crises lead to a lower level of brand trust and consumer purchase intentions compared to a moral-harm crisis. Coombs and Holladay (2006) found that human-error product harm has a more negative effect on stakeholders' post-crisis attitude towards an organization than technical-error product harm. Beldad et al. (2018) also observed that product harm crisis leads to higher integrity-based trust and lower purchase intentions than moral harm crisis.

Researchers are still at the early stages of developing a framework for understanding the underlying factors that cause these negative effects of the product harm crisis on stakeholders' behavior outcomes. Therefore, understanding the impact of the product harm crisis is critical for crisis managers and organizations to help them develop appropriate crisis

messages to counteract its effects (Dawar & Pillutla, 2000). The following hypotheses are tested:

*Hypothesis 1: Stakeholders will experience higher levels of (a) anger and lower levels of (b) sympathy (c) brand trust and (d) purchase intentions when the crisis is framed as a human-error product harm crisis compared to a technical-error product harm crisis.*

## **2.3 Emotional Crisis Communication**

Crisis provides emotional experiences for both the organization facing the brand crisis as well as its stakeholders (van der Meer & Verhoeven, 2014). The most dominant emotions investigated in crisis communications literature are anger, sympathy, shame, and regrets (Coombs, 2007b; Weiner, 2005; Utz et al., 2013; Jin, 2013; van der Meer & Verhoeven, 2014) since these emotions relate to those frequently expressed during a crisis. Stakeholders express certain levels of anger or sympathy towards an organization or brand in crisis – depending on how much they perceive that the brand or organization is responsible for the crisis – while organizations or brands express regret or shame because of their involvement in the crisis.

The common practice in crisis communication is that most organizations or brands facing crisis integrate emotions in their crisis message. Speakers representing a company in crisis might show the emotions they are experiencing deliberately or accidentally (van der Meer & Verhoeven, 2014; Yao & Lai, 2018). These emotions can be represented through words (e.g., a speaker can simply state how he or she feels in this circumstance), or even communicate nonverbally using facial expressions such as gestures, or postures (Ekman, 1993). Stakeholders then correlate the communicated emotions of the spokesperson or representative with the whole organization, as they represent the complete organization (Christensen & Cornelissen, 2010). Further, Frijda and Mesquita (1994) posited that communicating emotions about a crisis event

provides stakeholders with direct information for evaluating the organization or brand. The communicated emotions then influence the stakeholders' interpretation of the crisis event, and their post-crisis behavior (van der Meer & Verhoeven, 2014; Utz et al., 2013; Wesseling et al., 2007; Kim & Cameron, 2011).

### 2.3.1 Effect of Communicating Regret

van der Meer and Verhoeven (2014) have suggested that during a crisis event, the emotions communicated by the organization must match the crisis else, it might escalate the situation. Several crisis communications studies have also shown that the expression of regret or shame when stakeholders attribute responsibility of the crisis to the organization helps organizations to mitigate the negative effect of the crisis (e.g., Wesseling et al., 2007; Pace et al., 2010; Coombs et al., 2010; van der Meer & Verhoeven, 2014). Gilovich et al. (1998) referred to regret as complex emotions that involve the feeling of shame, anger, frustration, disgust, irritation, embarrassment, and guilt, about one's decision. Also, Landman (1993, p. 4) defined regret as "the state of feeling sorry for misfortunes, limitations, losses, shortcomings, transgressions, or mistakes". Thus, expressing regret is a way organizations or brands in crisis show that they feel bad for their involvement or role in the crisis (Pace et al., 2010).

Further, during the brand crisis, the stakeholders' confidence in the brand may also be undermined when the stakeholders perceive that the organization has not taken the needed steps to protect them. Showing stakeholders that a brand or organization is sorry for its responsibility in the crisis, will help restore stakeholders' confidence in the brand and alter their negative perception and feelings towards the brand or organization, and this will also influence their post-crisis behavior (Dawar & Pillutla, 2000; Klein & Dawar, 2004; Chiu, 2016; Weiner, 2005; Pace et al., 2010; Coombs et al., 2010; van der Meer & Verhoeven, 2014).

van der Meer and Verhoeven (2014) found experimental evidence that communicating regrets increase the stakeholders' level of sympathy and lowers stakeholders' level of anger.

By communicating regrets, stakeholders will begin to see the organization positively since they believe their pains or harm has been acknowledged by the brand or organization. This will serve as buffers for the affective states of the stakeholders. While there are very limited researches investigating the effect of communicating emotions on stakeholders' emotions, no studies have so far investigated the effect of communicating emotions on consumers' brand trust. Based on this line of argument, the following hypothesis is proposed:

*Hypothesis 2: Stakeholders will experience lower levels of (a) anger and higher levels of (b) sympathy (c) brand trust and (d) purchase intention when organizations or brands communicate regrets compared to no regrets.*

## **2.4 Message Source**

The source is a warning-transmitting entity. It might be a government body, a producer, an importer, a trade association, a news media, organizational representatives, a CEO, or a social peer. The source is generally perceived to be well-informed about the situation and is typically expected to be credible although not always (Wogalter & Mayhorn, 2008). During a crisis, message sources are also expected to be present and well-informed about the issue (Boin et al., 2016). If they fail to manage the crisis well, it might escalate the situation and negatively impact stakeholders' post-crisis behavior. For example, in 2020, the CEO of CrossFit nearly destroyed the brand with his tweets and emails when the brand was facing a crisis. His crisis response tweet and email led to several CrossFit brand affiliates cutting ties with the brand<sup>3</sup>. It, therefore, makes a difference in who represents the organization in crisis.

The message source during a crisis might influence the stakeholders' post-crisis behavior outcome whether a company CEO or a general spokesperson delivers the crisis

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<sup>3</sup> <https://spinsucks.com/communication/crossfit-ceo-crisis-communications/>

message. The CEO is a critical instrument available to the organization. The CEO, whether a well-known public personality or not, might have a significant impact on how stakeholders react to a crisis (Verhoeven et al., 2012; Laufer et al., 2018). The topic that is increasingly being raised is whether the CEO should serve as the company's spokesman in all crises. There are varying opinions on whether the CEO or a general company spokesperson should speak on behalf of the organization during a crisis. Some scholars argue that the CEO should be present or visible in all crises (e.g., Turk et al., 2012), while others contend that this depends on the organization's level of responsibility in the crisis (See, Goodman et al., 2009).

#### 2.4.1 Effect of Message Source

Previous researches have also found a link between the message source and stakeholders' post-crisis behavior (van der Meer & Jin, 2019; Boin, 2005). During a crisis, stakeholders become eager for information about the crisis. According to Liu et al. (2011), stakeholders turn to social media for reliable news on the crisis. If the organization does not openly share its crisis information, the stakeholders will rely on the information obtained from external sources (e.g., such as news media, a social peer, or blogs) about the crisis. When that happens, the organization loses its capacity to manage the crisis and diffuse stakeholders' negative reactions (Seeger, 2006).

In a cross-cultural study, Laufer et al. (2018) observed that when CEOs act as the spokesperson for an organization during a product harm crisis relative to a general company spokesperson, the stakeholders' level of trust in the brand is increased and this in turn also increases their future purchase intentions, although this differed among two cultures. While these studies contribute much to what is known about the effect of message sources in crisis communication, these pieces of evidence are not sufficient to derive general claims. Also, the



effect of message sources on stakeholders' emotions is not yet known. Along this line of argument, the following hypotheses are proposed:

*Hypothesis 3: Stakeholders will experience lower levels of (a) anger and higher levels of (b) sympathy (c) brand trust and (d) purchase intentions anger when a brand crisis message is delivered by a CEO compared to a general company spokesperson.*

## **2.5 Communicated Emotion and Brand Crisis Type**

As previously discussed, during a crisis, emotions serve as a critical stimulus in the stakeholders' interpretation of what is going on (Lazarus, 1991; Jin et al., 2007). Since crisis provides an emotional experience for the stakeholders, the felt emotions inform them of their post-crisis behavior (Weiner, 2005; van der Meer & Verhoeven, 2014; Frijda & Mesquita, 1994). Typically, most brands integrate emotional elements into their crisis message to alter the negative emotions that stakeholders are experiencing as well as the potential post-crisis behaviors that will result from the negative felt states (Weiner, 1985; Weiner et al., 1987; Coombs, 2004; Weiner, 2005). According to Frijda and Mesquita (1994), communicating emotions about a crisis event provides stakeholders with direct information for evaluating the organization or brand. The communicated emotions then influence the stakeholders' interpretation of the crisis event and neutralize any negative feelings perceptions about the organization (van der Meer & Verhoeven, 2014; Utz et al., 2013).

Stakeholders who perceive that an organization or brand has high levels of crisis responsibility will experience negative emotions such as anger (Weiner, 1985; Weiner et al., 1987; Coombs, 2004). Likewise, when individuals perceive that a brand or an organization has low attribution of crisis responsibility, they will experience positive emotions such as sympathy. The positive emotions then influence behavior intentions or desired actions (Weiner, 2005;

Coombs, 2007b). When a crisis occurs, the emotions communicated by the organization must match the crisis else, it might escalate the situation (van der Meer & Verhoeven, 2014). In principle, both technical-error product harm and human-error product harm crisis involve the attribution of some level of organizational responsibility. So, by integrating regret in the crisis message brands are showing how bad they feel about their involvement in the crisis. Several crisis communications studies have also shown that the expression of regret or shame when stakeholders attribute responsibility of the crisis to the organization helps organizations to mitigate the negative effect of the crisis (e.g., Wesseling et al., 2007, Pace et al., 2010; Coombs et al., 2010; van der Meer & Verhoeven, 2014). However, there are very limited studies investigating the effect of communicating emotions such as regrets in a product harm crisis. There has seldom been any earlier study exploring the link between communicated emotions and the different types of product harm crises. It might be the case that regrets work better for technical-error product harm crises than human-error product harm crises. Therefore, this study finds it interesting to examine the effect of communicating emotions in a product harm crisis. From this argument, the following hypothesis is proposed:

*Hypothesis 4: Organizations/brands communicating regrets will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intention than those communicating no emotions. And this effect will be more profound for technical-error product harm crises than human-error product harm crises.*

## **2.6 Communicated Emotion and Message Source**

In crisis communication, it is standard practice for organizations or brands experiencing a crisis to incorporate emotions into their crisis message. Depending on the level of involvement of an organization in the crisis, spokespersons or those representing the organization in crisis

may express emotions such as regret or shame (Goodman et al., 2009; van der Meer & Verhoven, 2014). Different spokespersons or company representatives (e.g., CEO or general company spokesperson) may speak on an organization's behalf during a crisis. However, there are relatively few studies that investigate the impact of using different spokespersons during a crisis. For example, Laufer et al. (2018) found a difference between using a CEO and general company spokesperson on stakeholders' brand trust and purchase intentions.

The communicated emotions give information about the brand or the sender and aid in the stakeholders' interpretation of the crisis (Frijda & Mesquito, 1994; van der Meer & Verhoven, 2014). It has also been shown that the expression of regret helps reduce negative perceptions about the wrongdoer, dispel the anger that the public feels towards the wrongdoer, and also trigger public sympathy (Semin & Manstead, 1981; Struthers et al., 2008; Hargie et al., 2010). Although the role of emotions in crisis communication has gained much attention, there is still a lot that is not yet known about the way emotions work in mitigating negative behaviors. For example, it is not yet known whether communicating emotions by a CEO during a product harm crisis is more effective than using a general company spokesperson. Along this line of argument, the following interaction effect hypothesis is developed:

*Hypothesis 5: Organizations/brands communicating regrets will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intentions than those communicating no emotions. And this effect will be more profound when a crisis message is delivered by a CEO than a general company spokesperson.*

## **2.7 Brand Crisis Type and Message Source**

In crisis communication literature, the role of the message source or spokesperson in a product harm crisis is under-researched (Laufer et al., 2018). While much has been published

on how to design an effective corporate message during a crisis, such as how to include regret or apology in an organization's response, relatively few studies have focused on who delivers the crisis message and how this affects stakeholders' behavior outcomes.

As previously discussed, there are varying opinions on whether the CEO or general company spokesperson should speak on behalf of the organization during a crisis. Some scholars contend that the CEO should be visible in all crises (e.g., Turk et al., 2012), while others argue that this depends on the organization's level of responsibility in the crisis (e.g., Goodman et al., 2009).

In addressing the question of whether CEOs should step up and address the public during a crisis, Lucero et al. (2009) proposed that CEOs should not serve as spokespersons during a product harm crisis. Contrarily, Laufer et al. (2018) found experimental evidence that when CEOs act as the spokesperson for an organization during a product harm crisis relative to a general company spokesperson, the stakeholders' level of trust in the brand is increased and this in turn also increases their future purchase intentions. Although, the effects observed were more profound for cultures with high power distance than those with low power distance. Additionally, Laufer et al. (2018) focussed on one type of product harm crisis (i.e., technical-error product harm crisis) in different contexts. Crises with high responsibility will likely lead to more favorable behavior outcomes than crises with low responsibility. Along this line of argument, the following interaction effect hypotheses are proposed:

*Hypothesis 6: When a crisis message is delivered by a CEO (as opposed to a general company spokesperson), organizations/brands facing technical-error product harm will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intentions than those facing human-error product harm crisis.*

## 2.7 Mediation: Brand Trust and Purchase Intentions

Typically, people buy things from brands they trust. This suggests that people's willingness to buy from a brand is influenced by their trust in that brand. Stakeholders expect that the brand or organization will use safeguards to ensure their safety or protection. A brand crisis, on the other hand, provides the conditions for stakeholders' trust in the brand to be undermined. Previous studies have found a link between brand trust and purchase intentions (Dam, 2020). For example, Aydin et al. (2014) confirmed that brand trust has a positive effect on purchase intentions. In the current study, it is expected that the relationship between the three independent variables on purchase intentions will be mediated by brand trust. Specifically, the following hypothesis is proposed:

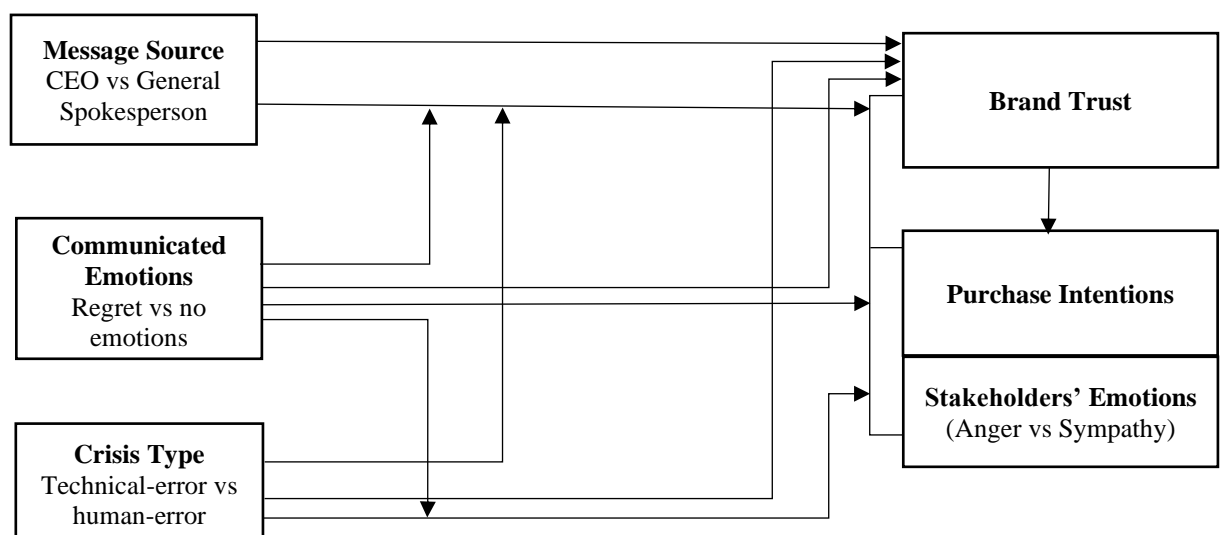
*Hypothesis 7: brand trust mediates the relationship between (a) brand crisis type, (b) communicated emotions, (c) message source, and purchase intentions.*

## 2.9 Conceptual Model

*The conceptual framework in this study is based on the hypotheses formulated in the literature (see Figure 1).*

Figure 1

*Conceptual Framework of the Study*



### 3. Method

#### 3.1 Research Design

The current study used a 2(Communicated Emotions: regret vs no emotions) x 2 (Brand Crisis Type: technical-error product harm vs human-error product harm) x 2 (Message Source: CEO vs general company spokesperson) between-subject experimental design. The manipulation resulted in eight (8) experimental conditions which were created with the three independent variables. This is shown in Table 1.

A between-subject design was used for this study because it allows each participant to see only one of the experimental conditions, eliminates any carryover effect from other conditions, and allows for comparisons of the differences across the experimental groups. In this study, participants were randomly assigned to one of the eight (8) experimental conditions. The experiment was conducted online. After participants saw the experimental materials, they answered questions.

Table 1

*Experimental Conditions of the Study*

		Message Source			
		CEO		PR Manager	
Crisis Type	Human-error	Communicated Emotions		Communicated Emotions	
		regret	no emotion	regret	no emotion
	Technical-error	Communicated Emotions		Communicated Emotions	
		regret	no emotion	regret	no emotion

### **3.2 Pre-Test**

A pre-test was performed to create stimulus materials that reflected reality. Participants were asked to indicate whether a crisis message was delivered by a CEO or a general company spokesperson. Also, participants were asked to indicate whether they could detect emotions in the crisis message or not. Additionally, participants discriminated against whether the stimulus material shows a technical-error or human-error product harm crisis. A total number of ten (10) people of whom five (5) were male and five (5) were female participated in the pre-test. They were recruited by convenience and their age ranged from 17 to 35 years with a mean of 23 years.

Participants were asked to complete a short questionnaire containing five questions on the manipulation checks. While the respondents answered the questions, the researcher took notes. The validity of the manipulation items was also assessed. Small adjustments were made to the manipulation check item relating to the brand crisis type and message source as a result of evaluation checks with participants and manipulation checks. The participants confirmed the reality and appropriateness of the crises. Finally, the complete questionnaire was also checked for correctness in terms of spelling, understandability, readability, and grammar to make sure the manipulations were measured correctly.

### **3.3 Experimental Materials**

A fictitious brand and crisis communication message was utilized for this experiment to eliminate participants' initial experiences with a brand that may prejudice subjects (Siomkos, 1999). In each group, participants saw a fictitious crisis message framed as either technical-error or human-error product harm crisis. Thus, two fictitious product-harm crisis scenarios were created. This paper used a product-harm crisis because it has the most frequent occurrence

compared with other crises (Dawar & Pillutla, 2000). Further, although product-harm is the most dominant type of crisis in brand crisis communication literature (e.g., Dawar & Pillutla, 2000; Hegner et al., 2018), there is still little knowledge on how to counteract their negative effects.

The elements of the crisis message manipulated for this experiment were presented on a company Facebook page in a form of a press release. The company's social media page was set up for this experiment. Facebook was used as the platform for communicating the crisis message due to its wide usage and popularity in communications research (e.g., Eriksson & Olsson, 2016; Wang, 2016). A web-based Facebook Ads Mockup application<sup>4</sup> was used to create fictitious news on Facebook to inform the participants about the crisis. Further, the experimental materials were designed with Adobe Creative Cloud Express<sup>5</sup>.

The first crisis scenario involved a fictitious brand named “CAKER” in a technical-error product harm crisis. In this scenario, Caker is a leading chocolate brand in chocolate manufacturing. Participants have learned about people getting sick after eating Caker chocolate bar. Chocolate was chosen for this study because of its high consumption. A machine malfunction caused all sold products to be recalled. In the second crisis scenario, Caker was involved in a human-error product harm crisis. In this scenario, an employee's mistake in the production line has caused all sold products to be recalled.

The content of each of the experimental materials was varied with either emotional information (i.e., regret) or no emotional information about the crisis. Each participant was exposed to one of the two communicated emotions. The first will contain textual information expressing regrets. In that message, the organization/brand expresses regret about the crisis that has just happened. Regret is one of the emotions frequently used in product-harm crises to

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<sup>4</sup> <https://influencermarketinghub.com/facebook-ads-mockup/>

<sup>5</sup> <https://www.adobe.com/express/>



mitigate negative reactions from stakeholders (e.g., Pace et al., 2010). Also, the findings concerning the role of regrets in crisis communication remain inconclusive (e.g., van der Meer & Verhoeven). The second message will contain no emotional text. In that message, the organization discusses factual information only.

Finally, as already shown, researches on crisis message source are very limited warranting the need for further investigation to find out if there is a difference when organizations use a CEO in crisis compared to using a general company spokesperson. The press release was posted by either the CEO or a general company spokesperson. This was manipulated by modifying an organization's crisis message. See Table 2 and Figure 2.

**Table 2**

*Characteristics of the Experimental Materials*

	Content		Message Source
	Communicated Emotions		
	Regret	No regret	
Technical-error product harm	A sentence expressing regret about company transgression  <b>Crisis Scenario:</b> chocolate contains bacteria due to technical malfunction. 12 persons have stomach problems	No regrets in company crisis message  <b>Crisis Scenario:</b> chocolate contains bacteria due to technical malfunction. 12 persons have stomach problems	CEO acts as the company spokesperson  <b>Element:</b> <ul style="list-style-type: none"><li>• Name</li><li>• Title</li><li>• Company</li><li>• Letter Head</li></ul>
	A sentence expressing regret about company transgression  <b>Crisis Scenario:</b> chocolate contains bacteria due to technical malfunction. 12 persons have stomach problems	No regrets in company crisis message  <b>Crisis Scenario:</b> chocolate contains bacteria due to technical malfunction. 12 persons have stomach problems	PR Manager acts as the company spokesperson  <b>Element:</b> <ul style="list-style-type: none"><li>• Name</li><li>• Title</li><li>• Company</li><li>• Letter Head</li></ul>
Human-error product harm	A sentence expressing regret about company transgression  <b>Crisis Scenario:</b> chocolate contains pieces of plastic due to an employee mistake. 12 persons have been affected.	No regrets in company crisis message  <b>Crisis Scenario:</b> chocolate contains pieces of plastic due to an employee mistake. 12 persons have been affected.	CEO acts as the company spokesperson  <b>Element:</b> <ul style="list-style-type: none"><li>• Name</li><li>• Title</li><li>• Company</li><li>• Letter Head</li></ul>
	A sentence expressing regret about company transgression  <b>Crisis Scenario:</b> chocolate contains pieces of plastic due to an employee mistake. 12 persons have been affected.	No regrets in company crisis message  <b>Crisis Scenario:</b> chocolate contains pieces of plastic due to an employee mistake. 12 persons have been affected.	PR Manager acts as the company spokesperson  <b>Element:</b> <ul style="list-style-type: none"><li>• Name</li><li>• Title</li><li>• Company</li><li>• Letter Head</li></ul>

**Figure 2**

*Examples of Crisis Message (top: technical-error vs CEO vs regret stimulus, bottom: human-error vs CEO vs no regret stimulus)*



### PRESS RELEASE

You have probably heard or read that we have serious problems with our products sent to the market about a month ago. Some of our chocolate bar sent to Belgium have been reported to contain salmonella bacteria.

An internal investigation showed that our newly acquired disinfectant machines were unable to sanitize the chocolate properly. So far, twelve (12) persons who developed stomach pains after eating the chocolate bar are receiving treatment.

As a precaution, we are recalling all our chocolate bar manufactured within the last 4 weeks from the market. Also, if you already consumed our products and feeling dizzy, we advice that you contact your general practitioner.

Finally, we will like to express our deepest regret for what has happened especially to our affected customers.

*Carel van Wijk*  
**CHIEF EXECUTIVE OFFICER**

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### PRESS RELEASE

You have probably heard or read that we have serious problems with our products sent to the market about a month ago. Some of our chocolate bar sent to Belgium have been reported to contain pieces of plastic.

An internal investigation showed that an employee mistake in the production caused the plastic to enter the product. So far, twelve (12) persons who developed stomach pains after eating the chocolate bar are receiving treatment.

As a precaution, we are recalling all our chocolate bar manufactured within the last 4 weeks from the market. Also, if you already consumed our products and feeling dizzy, we advice that you contact your general practitioner.

*Carel van Wijk*  
**CHIEF EXECUTIVE OFFICER**

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### 3.4 Procedure

The participants were recruited using a convenient sampling technique since it provided an easier way to get the appropriate number of participants in the limited time available for the study. Participants were invited to take part in an online survey and were randomly assigned to one of the eight types of experimental conditions using Qualtrics.

To ensure that this study adheres to the required ethical requirements, each participant completed an informed consent form and was briefed about the nature of the research and its safety. Participants provided their demographic information. Then, they were asked to indicate their product affinity and brand awareness. After this, they were randomly assigned to one of the experimental conditions. Following exposure to one of the eight (8) crisis scenarios, manipulation checks and construct derived from several literature-based questions.

### 3.5 Manipulation

A total of five (5) items were used to check the manipulation of the independent variables: brand crisis type, communicated emotions, and message source.

First, to check the manipulation of the brand crisis type (technical-error vs human-error) participants were asked to indicate the cause of the crisis. Participants were asked to rate the item “Do you perceive this crisis as the result of ...?” on a 5-point bipolar *employee mistake/machine malfunction* scale.

Participants were then asked to identify who was speaking on behalf of the brand or organization in crisis. The item “Who do you recall speaking on behalf of CAKER? was responded to on a 5-point bipolar *PR Manager/CEO* scale.

Communicated emotion was checked by asking participants how the crisis message was communicated. Participants rated two statements such as “CAKER expressed emotions about

the crisis” on a 5-point *disagree/agree* scale. Each item was responded to on a 5-point *disagree/agree* scale. One item was negatively worded (‘CAKER expressed no emotions about the crisis’) and had to be re-coded. The scale’s reliability was at least satisfactory (Cronbach's  $\alpha = .76$ ).

Finally, participants were asked to indicate how realistic they found the manipulation. The item “This message looks realistic” was answered on a 5-point *disagree/agree* scale.

### 3.6 Participants

A total of 216 English-speaking students taking their course at the University of Twente participated in this study, of which twenty-four (24) were excluded due to incomplete responses, yielding a final sample of 192 respondents (85 males, 107 females). The participants' ages ranged from 17 to 33 with a mean of 22.06 years ( $SD = 3.28$ ). About 69% of the respondents were taking a Bachelor’s degree, 26% were following a master’s degree, and 5% were doing their Premaster. The Netherlands had the highest proportion of respondents (26%), followed by Germany (20.3%) and Spain (5.7%). Table 4 provides a comprehensive summary of the demographic information provided by the participants.

To determine participants' affinity with the product used in the manipulations, two statements "I like chocolates" and "I usually eat chocolates" were employed. Participants generally liked chocolate ( $M = 4.45$ ,  $SD = 0.87$ ), and they ate chocolate on a frequent basis ( $M = 3.43$ ,  $SD = 1.25$ ). In addition, two statements “I have heard of the CAKER brand before” and “I am aware of the existence of CAKER” were used to determine participants' awareness of the existence of the brand used in the manipulations. Participants had not heard of the existence of the brand ( $M = 1.12$ ,  $SD = 0.45$ ), nor were they aware of its existence ( $M = 1.21$ ,  $SD = .62$ ).

As indicated in Table 5, the participants were generally evenly divided into eight (8) separate conditions, each with at least 23 participants.

Table 3

*Participants' Demographic Information*

<b>Demographic</b>	<b>N</b>	<b>%</b>	<b>M</b>	<b>SD</b>
<b>Age</b>			22.06	3.28
<b>Gender</b>				
Male	85	44.3		
Female	107	55.7		
<b>Education</b>				
Bachelor's degree	133	69.3		
Premaster	9	4.7		
Master	50	26.0		
<b>Country</b>				
Belgium	1	0.5		
Brazil	1	0.5		
Bulgaria	4	2.1		
China	6	3.1		
Ecuador	2	1.0		
Eritrea	5	2.6		
France	4	2.1		
Germany	39	20.3		
Ghana	4	2.1		
Greece	7	3.6		
Iran	1	0.5		
Iraq	1	0.5		
Kenya	6	3.1		
Luxembourg	5	2.6		
Morocco	1	0.5		
Netherlands	50	26.0		
Nigeria	6	3.1		
Poland	7	3.6		
Portugal	2	1.0		
Romania	3	1.6		
Rwanda	2	1.0		
South Korea	4	2.1		
Spain	11	5.7		
Sweden	7	3.6		
Switzerland	2	1.0		
Turkey	4	2.1		
United Kingdom of Great Britain and Northern Ireland	6	3.1		
Viet Nam	1	0.5		
<b>Total</b>	<b>192</b>	<b>100</b>		

Table 4

*Division and Means Per Condition*

Condition	Stimuli	N	%	Age		Gender
				M	SD	
1	Human-error, PR Manager, No regret	24	12.5	22.17	2.65	8 Male
						16 Female
2	Human-error, PR Manager, Regret	25	13	22.28	3.69	10 Male
						15 Female
3	Human-error, CEO, No regret	24	12.5	21.96	3.85	9 Male
						15 Female
4	Human-error, CEO, No regret	24	12.5	22.54	3.59	12 Male
						12 Female
5	Technical-error, PR Manager, No regret	24	12.5	22.25	4.13	14 Male
						10 Female
6	Technical-error, PR Manager, Regret	24	12.5	21.29	2.49	9 Male
						15 Female
7	Technical-error, CEO, No regret	24	12.5	22.13	2.63	14 Male
						10 Female
8	Technical-error, CEO, Regret	23	12	21.87	3.14	9 Male
						14 Female
Total		192	100			

**3.7 Dependent Measures****3.7.1 Brand Trust**

Brand trust was measured with three items adapted from (Klein & Dawar, 2004; Hegner et al., 2018). This included for example: “CAKER is a trustworthy brand”. All brand trust items were responded to on a 5-point *disagree/agree* scale.

### 3.7.2 Purchase Intentions

Purchase Intentions was measured with four (4) items developed by (Kim & Cameron, 2011). The four items contained for instance: “I would consider buying from CAKER in the future.” All purchase intention items were responded to on a 5-point *disagree/agree* scale.

### 3.7.3 Stakeholders' Emotion

Anger was measured with four (4) items developed by McDonald et al. (2011). Examples of the items measuring anger include: “After reading the statement I feel angry.” All anger items were measured on a 5-point scale *disagree/agree* scale.

Sympathy was also measured with four (4) items adopted by McDonald et al. (2011). This included for example: “After receiving the statement, I feel empathy” All sympathy items were measured on a 5-point scale *disagree/agree* scale.

### 3.7.4 Validity and Reliability of Dependent Measures

To establish the actual relationship between the dependent measures, a principal component analysis with varimax rotation was performed. The four factors accounted for 86.23% of the variance. Scores were generated for each factor scale by computing the means of its items. Cronbach's alpha was used to determine the internal consistency of the dependent variables. The scales' reliability was at least satisfactory (all  $\alpha > .8$ ). Table 6 displays the outcome. IBM SPSS Statistics was used for additional statistical analysis of the data.



Table 5

*Loadings of the dependent variables after varimax rotation*

Item	Factor			
	1	2	3	4
After reading the message from CAKER - I feel disgusted	.87			
After reading the message from CAKER - I feel outraged.	.86			
After reading the message from CAKER - I feel annoyed	.85			
After reading the message from CAKER - I feel angry	.83			
I don't see buying chocolate from CAKER in the future		.84		
I would purchase CAKER's products if I have the opportunity in the future.		.83		
I would consider buying from CAKER in the future		.78		
I would not hesitate to buy chocolate from CAKER in the future		.74		
CAKER is ... - a trustworthy brand.			.87	
CAKER is ... - a reliable brand			.86	
CAKER is ... - concerned about its customers			.83	
After reading the message from CAKER, - I feel empathy.				.89
After reading the message from CAKER, - I feel sympathetic				.86
After reading the message from CAKER, - I feel sorry.				.58
After reading the message from CAKER, - I feel compassion.				.55
<b>Explained Variance:</b>	60.96%	12.37%	7.42%	5.47%
<b>Eigenvalue:</b>	9.14	1.86	1.11	.82
<b>Cronbach alpha:</b>	.94	.95	.96	.90

KMO = .90; Minimum factor loading = .55; Percentage of Variance explained = 86.23; 1 = Anger; 2 = Purchase intentions; 3 = Brand trust; 4 = Sympathy

## 4. Results

### 4.1 Manipulation Check

The manipulations were checked using independent and one-sample T-tests. First, an independent T-test revealed a significant difference in manipulation of brand crisis type (human-error vs. technical-error), ( $t(190) = -39.11, p < .001$ ). Scores in the technical-error condition ( $M = 4.71, SD = .65$ ) differ from those in the human-error condition ( $M = 1.34, SD = .54$ ). A one-sample t-test was used to determine if the manipulations of the brand crisis type met the intended criterion. Scores in the technical-error condition were significantly higher than the midpoint of the scale, ( $t(94) = 25.56, p < .001$ ). This demonstrated that individuals assigned to a technical-error condition accurately identified that the crisis was caused by a problem with the machine ( $M = 4.71, SD = .65$ ). In contrast, scores in the human-error condition were significantly lower than the midpoint of the scale ( $t(96) = -30.39, p < .001$ ). Indicating that those who were assigned to a human-error condition confirmed that the crisis was the result of an employee mistake ( $M = 1.34, SD = .54$ ).

Second, regarding the manipulation of message source (CEO vs. PR Manager), an independent T-test showed a significant difference in the manipulation ( $t(179) = -16.68, p < .001$ ). Scores in the CEO condition ( $M = 4.45, SD = 1.38$ ) differ from those in the PR manager condition ( $M = 1.44, SD = 1.10$ ). A one-sample T-test was performed to check if the manipulations of the message source meet the intended criterion. Scores in the CEO condition were significantly higher than the midpoint ( $=3$ ) of the scale,  $t(94) = 10.25, p < .001$ . This showed that those who were assigned to CEO condition correctly recalled the CEO speaking on behalf of the organization ( $M = 4.45, SD = 1.38$ ). In contrast, scores in the PR condition were significantly lower than the midpoint ( $=3$ ) of the scale, ( $t(96) = -13.95, p < .001$ ). Indicating that those who were assigned to a PR Manager condition recalled the PR Manager speaking on behalf of the organization ( $M = 1.44, SD = 1.10$ ).

Third, an independent t-test was conducted to check the manipulation of communicated emotions. Within the communicated emotions variable, there was a significant difference for the regret manipulation ( $t(190) = -15.35, p < .001$ ). Individuals assigned to the regret condition were more likely to perceive it as such ( $M = 4.22, SD = 0.73$ ) than those who were not ( $M = 2.03, SD = 1.19$ ). Furthermore, the no regret condition manipulation was successful. An independent t-test revealed a statistically significant difference for no regret ( $t(190) = 6.23, p < .001$ ). Participants assigned to the no regret group accurately perceived it as such ( $M = 3.38, SD = 1.29$ ) compared to those who were not ( $M = 2.31, SD = 1.06$ ).

Finally, a one sample t-test was conducted to determine how realistic the participants found the three manipulations. As shown in Table 3, all realisticness scores within the manipulation were statistically significant (Human-error:  $t(96) = 4.55, p < .001$ ; Technical-error:  $t(94) = 3.79, p < .001$ ; PR Manager:  $t(96) = 3.16, p = .002$ ; CEO:  $t(94) = 5.15, p < .001$ ; Regret:  $t(95) = 3.76, p < .001$ ; No regret:  $t(96) = 4.57, p < .001$ ) and higher than the midpoint ( $=3$ ). Indicating the manipulation was positively perceived as realistic.

**Table 6**

*The realisticness of the Manipulation (Scores range from 1 to 5, Standard deviation in brackets)*

	Brand Crisis Type		Message Source		Communicated Emotions	
	HE	TE	CEO	PR Manager	Regret	No Regret
<b>This message looks realistic</b>	3.53 (1.14)	3.44 (1.14)	3.63 (1.19)	3.34 (1.06)	3.40 (1.03)	3.57 (1.23)

HE = human-error, TE = technical-error, CEO= Chief Executive Officer

## 4.2 Correlations Analysis

A correlation analysis was performed to illustrate the correlations between the variables to have an initial impression of the links between the dependent variables. The descriptive statistics and

correlation of the outcome variables are shown in Table 7. The mean score and standard deviation show no evidence for potential floor or ceiling effects, or restriction of range effect. The direction of the relationship between the dependent variables makes intuitive sense; for example, high levels of anger are negatively associated with low levels of brand trust and purchase intentions. Furthermore, there is no reason to infer multicollinearity based on the correlations between the dependent variables.

Table 7

*Correlation Analysis of the Dependent Variables*

	Mean (SD)	Anger	Sympathy	Brand Trust	Purchase Intentions
<b>Anger</b>	2.87 (1.34)	1			
<b>Sympathy</b>	2.96 (1.05)	-.51**	1		
<b>Brand Trust</b>	2.73 (.99)	-.49**	.68**	1	
<b>Purchase Intentions</b>	2.87 (1.14)	-.62**	.75**	.69**	1

\*\* $p < .001$ ,

### 4.3 Main Effects of Brand Crisis Type, Message Source, and Communicated Emotions

#### 4.3.1 Brand Crisis Type

A MANOVA showed a significant main effect of brand crisis type ( $F(4, 181) = 27.67, p < .001$ ). Brand crisis type influenced all four dependent variables; anger, sympathy, brand trust, and purchase intentions. Participants who were exposed to a human-error product harm crisis reported higher levels of anger ( $M = 3.31, SD = 1.37$ ) compared to those who saw the technical error product harm crisis ( $M = 2.42, SD = .09$ ). Further, those who viewed the technical-error product harm crisis indicated high levels of sympathy ( $M = 3.16, SD = 1.03$ ), brand trust ( $M = 2.92, SD = .96$ ), and purchase intentions ( $M = 3.07, SD = 1.13$ ) relative to those confronted with

the human-error product harm crisis (sympathy:  $M = 2.77$ ,  $SD = 1.03$ ; brand trust:  $M = 2.54$ ,  $SD = .99$ ; purchase intentions:  $M = 2.67$ ,  $SD = 1.11$ ). Therefore, hypothesis 1a, 1b, 1c, and 1d were supported. The findings are presented in Table 8 and Table 9.

Table 8

*Summary Statistics of Brand Crisis Type (Scores ranged from 1 to 5)*

Dependent Variables	Human-error			Technical-error		
	N	M	SD	N	M	SD
Anger	97	3.31	1.37	95	2.42	1.16
Sympathy	97	2.77	1.03	95	3.16	1.03
Brand Trust	97	2.54	.99	95	2.92	.96
Purchase Intentions	97	2.67	1.11	95	3.07	1.13

Table 9

*ANOVA Effects of Brand Crisis Type on the Dependent Measures*

Dependent Variables	Sum of sq.	df	Mean sq.	F	Sig.
Anger	40.16	1	40.16	58.14	.000
Sympathy	7.79	1	7.79	23.45	.000
Brand Trust	7.54	1	7.54	15.53	.000
Purchase Intentions	8.36	1	8.36	24.03	.000

#### 4.3.2 Communicated Emotions

A MANOVA showed an effect of communicated emotions ( $F(4, 181) = 256.44$ ,  $p < .001$ ) on all four dependent variables; anger, sympathy, brand trust, and purchase intentions. Anger was higher ( $M = 3.82$ ,  $SD = .74$ ) when no regrets were expressed in the crisis message than when regrets ( $M = 1.93$ ,  $SD = 1.14$ ) was communicated. Further, participants reported higher levels of sympathy ( $M = 3.70$ ,  $SD = .53$ ), brand trust ( $M = 3.36$ ,  $SD = .82$ ), and purchase

intentions ( $M=3.79$ ,  $SD =.68$ ) when organizations expressed regrets than when they expressed no regrets in their crisis message (sympathy:  $M = 2.22$ ,  $SD = .64$ ; brand trust:  $M = 2.10$ ,  $SD = .72$ ; purchase intentions:  $M = 1.95$ ,  $SD = .66$ ). Therefore, hypothesis 2a, 2b, 2c, and 2d were supported. The findings are presented in Table 10 and Table 11.

Table 10

*Summary Statistics of Communicated Emotions (Scores ranged from 1 to 5)*

Dependent Variables	No regret			Regret		
	N	M	SD	N	M	SD
Anger	96	3.82	.74	96	1.93	1.14
Sympathy	96	2.22	.64	96	3.70	.53
Brand Trust	96	2.10	.72	96	3.36	.82
Purchase Intentions	96	1.95	.66	96	3.79	.68

Table 11

*ANOVA effects for Communicated Emotions*

Dependent Variables	Sum of sq.	df	Mean sq.	F	Sig.
Anger	172.65	1	172.65	249.95	.000
Sympathy	107.67	1	107.67	324.02	.000
Brand Trust	77.35	1	77.35	159.11	.000
Purchase Intentions	165.23	1	165.23	475.09	.000

#### 4.3.3 Message Source

A MANOVA revealed a significant effect of message source ( $F(4, 181) = 20.39$ ,  $p < .001$ ) on three of the dependent variables; sympathy, brand trust, and purchase intentions. Message source did not show any significant effect on anger. Participants who read crisis message from the CEO condition expressed higher levels of sympathy ( $M = 3.29$ ,  $SD = 1.07$ ), brand trust ( $M$

= 2.95,  $SD = 1.06$ ), and purchase intentions ( $M = 3.07$ ,  $SD = 1.24$ ) than participants who read crisis message in the PR manager condition (sympathy:  $M = 2.64$ ,  $SD = .92$ ; brand trust:  $M = 2.51$ ,  $SD = .88$ ; purchase intentions:  $M = 2.67$ ,  $SD = 1.00$ ). Therefore, hypothesis 3b, 3c, 3d were supported but hypothesis 3a was not supported. The findings are presented in Table 12 and Table 13.

Table 12

*Summary Statistics of Message Source (Scores ranged from 1 to 5)*

Dependent Variables	PR Manager			CEO		
	N	M	SD	N	M	SD
<b>Anger</b>	97	2.88	1.33	95	2.87	1.36
<b>Sympathy</b>	97	2.64	.92	95	3.29	1.07
<b>Brand Trust</b>	97	2.51	.88	95	2.95	1.06
<b>Purchase Intentions</b>	97	2.67	1.00	95	3.07	1.24

Table 13

*ANOVA effects for Message Source*

Dependent Variables	Sum of sq.	df	Mean sq.	F	Sig.
<b>Anger</b>	.06	1	.06	.08	.77
<b>Sympathy</b>	21.12	1	21.12	63.55	.000
<b>Brand Trust</b>	9.51	1	9.51	19.57	.000
<b>Purchase Intentions</b>	8.15	1	8.15	23.44	.000

#### 4.4 Interaction Effects of the Three Independent Variables

Three hypotheses relating to the interaction effects of the three independent variables on the four dependent variables were investigated below.

#### 4.4.1 Communicated Emotion X Brand Crisis Type

A MANOVA showed no significant interaction effect of communicated emotions and brand crisis type on anger ( $F(1, 184) = .59, p = .44$ ), sympathy ( $F(1, 184) = 3.86, p = .05$ ), brand trust ( $F(1, 184) = 2.95, p = .09$ ), purchase intention ( $F(1, 184) = .19, p = .66$ ). Thus, hypothesis 4a-4d concerning the interaction effect of communicated emotions and brand crisis type were not supported.

#### 4.4.2 Communicated Emotion X Message Source

A MANOVA found no interaction effect between communicated emotions and message source on anger ( $F(1, 184) = 2.35, p = .13$ ). There was a significant interaction effect of communicated emotions and message source on sympathy ( $F(1, 184) = 15.73, p < .001$ ). Sympathy was higher when the CEO expressed regrets ( $M = 4.21, SD = .38$ ) than when no regret was expressed ( $M = 2.39, SD = .08$ ). Further, in both the regret and no regret conditions, sympathy scores were higher when the CEO acted as the spokesperson of the organization (regret:  $4.21, SD = .08$ ; no regret:  $M = 2.39, SD = .67$ ) relative to the PR manager (regret:  $M = 3.21, SD = .82$ ; no regret:  $M = 2.05, SD = .59$ ). This is shown in Figure 3.

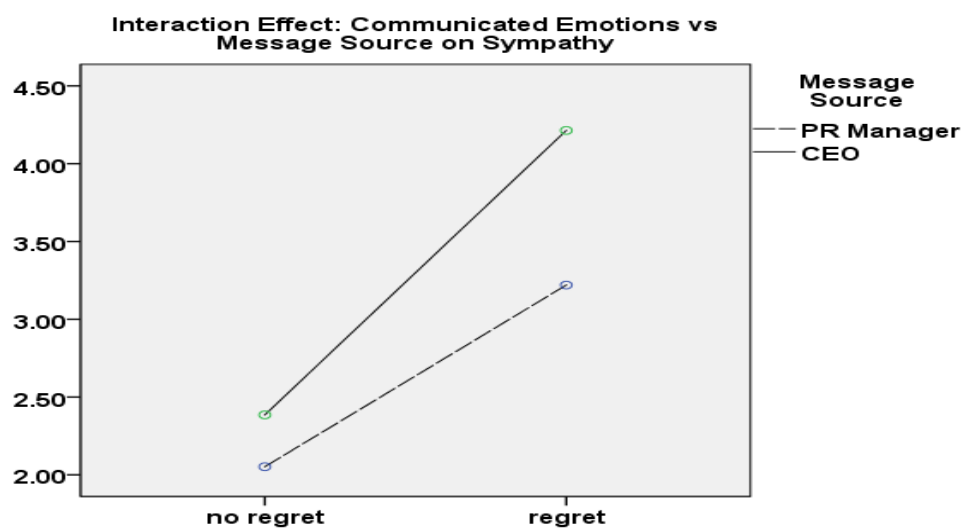


Figure 4: Interaction Effect of Communicated and Message Source on Sympathy



Furthermore, communicated emotions and message source had significant interaction effect on brand trust ( $F(4, 184) = 4.91, p = .03$ ). Brand trust was higher when regret was communicated by the CEO ( $M = 3.70, SD = .71$ ) compared to when regrets was expressed by the PR manager ( $M = 3.03, SD = .78$ ). Again, brand trust was higher when CEO expressed no regrets ( $M = 2.21, SD = .78$ ) relative to PR manager ( $M = 1.99, SD = .64$ ). The findings are illustrated in Figure 4.

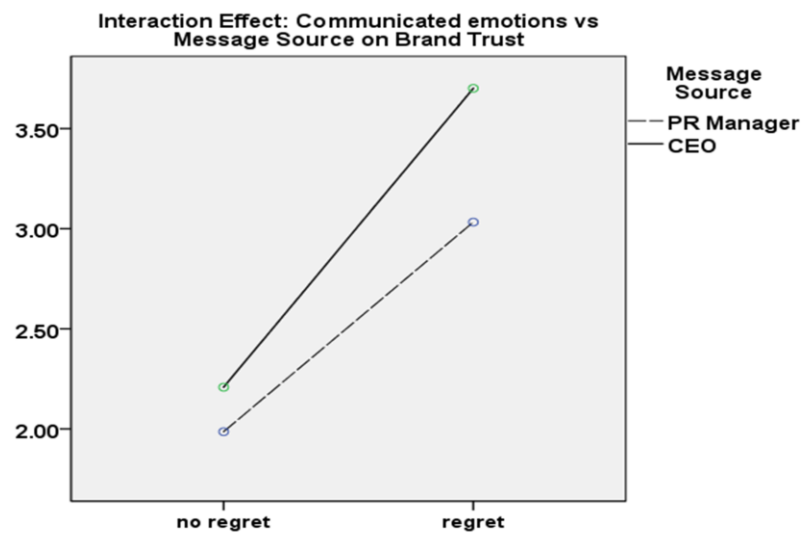


Figure 4: Interaction effect of communicated Emotions and message source on Brand Trust

Finally, purchase intention was significantly influenced by the interaction between communicated emotions and message source ( $F(1, 184) = 10.97, p = .001$ ). Purchase intention was higher when regret was communicated by the CEO ( $M = 4.14, SD = .55$ ) compared to when regrets was expressed by the PR manager ( $M = 3.45, SD = .62$ ). Again, purchase intention scored higher when CEO expressed no regrets ( $M = 2.01, SD = .70$ ) relative to PR manager ( $M = 1.88, SD = .60$ ). The findings are illustrated in Figure 5. Therefore, hypotheses 5b, 5c, and 5d were supported but hypothesis 5a was not supported. An overview of the results is presented in Table 14 and Table 15.

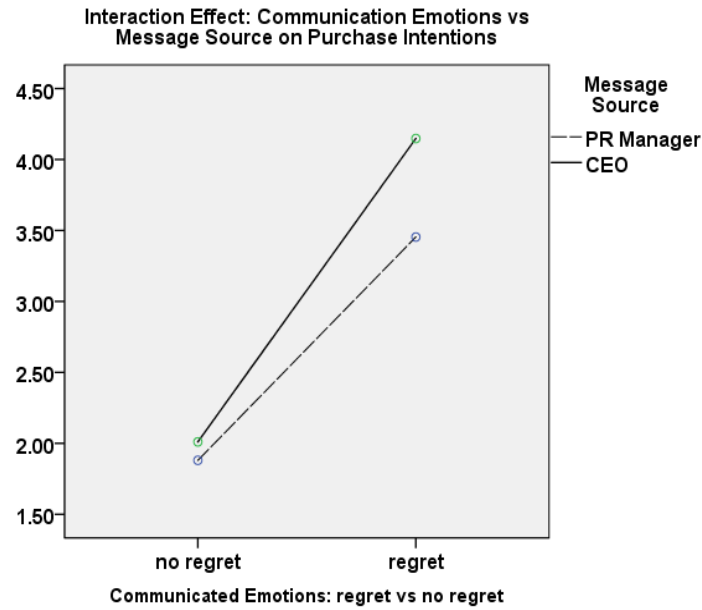


Figure 5: Interaction effect of communicated Emotions and message source on Purchase Intentions

Table 14

Summary Statistics of Communicated Emotions and Message Source (Scores ranged from 1 to 5)

Dependent Variables		No Regret			Regret		
		N	M	SD	N	M	SD
Anger	PR Manager	48	3.93	.73	49	1.85	.91
	CEO	48	3.71	.72	47	2.01	1.33
Sympathy	PR Manager	48	2.05	.59	49	3.21	.82
	CEO	48	2.39	.67	47	4.21	.38
Brand Trust	PR Manager	48	1.99	.64	49	3.03	.78
	CEO	48	2.21	.78	47	3.70	.71
Purchase Intentions	PR Manager	48	1.88	.06	49	3.45	.62
	CEO	48	2.01	.70	47	4.14	.55

Table 15

*ANOVA Effects of Communicated Emotion and Message Source*

<b>Dependent Variables</b>	<b>Sum of sq.</b>	<b>df</b>	<b>Mean sq.</b>	<b>F</b>	<b>Sig.</b>
<b>Anger</b>	1.63	1	1.63	2.35	.13
<b>Sympathy</b>	5.23	1	5.23	15.73	.000
<b>Brand Trust</b>	2.39	1	2.39	4.91	.03
<b>Purchase Intentions</b>	3.82	1	3.82	10.97	.001

## 4.4.3 Brand Crisis Type and Message Source

A MANOVA revealed that anger was not significantly influenced by the interaction between brand crisis type and message source ( $F(1, 184) = 1.61, p = .21$ ). Also, there was a significant effect of brand crisis type and message source on sympathy ( $F(1, 184) = 7.04, p = .01$ ). Sympathy scores were higher when the CEO acted as the spokesperson for the organization facing a technical-error product harm crisis ( $M = 3.37, SD = 1.05$ ) compared to human-error product harm crisis ( $M = 3.21, SD = 1.09$ ). Moreover, in both the technical-error and human-error conditions, sympathy was higher when the CEO was the spokesperson of the organization (technical-error:  $M = 3.37, SD = 1.05$ ; human-error:  $M = 3.21, SD = 1.09$ ) compared to the PR manager (technical-error:  $M = 2.95, SD = .98$ ; human-error:  $M = 2.33, SD = .75$ ). This is shown in Figure 6. Further, brand crisis type, and message source had no significant interaction effect on brand trust ( $F(1, 184) = 3.26, p = .07$ ). Finally, there was no significant interaction effect of brand crisis type and message source on purchase intentions ( $F(4, 184) = .03, p = .87$ ). Therefore, hypothesis 6b was supported whereas hypotheses 6a, 6c, and 6d were rejected. An overview of the results is presented in Table 14 and Table 15.

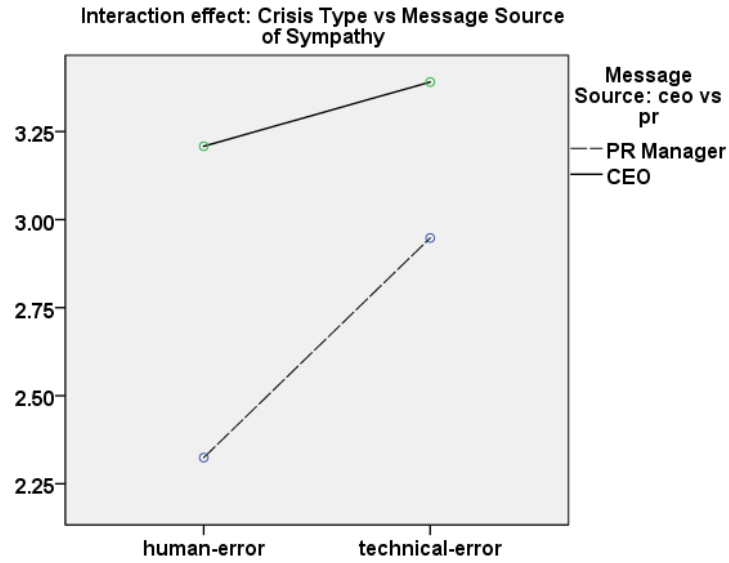


Figure 6: Interaction Effect of Brand Crisis Type and Message Source on sympathy

Table 16

Summary Statistics of Brand Crisis Type and Message Source (Scores range between 1 to 5)

Dependent Variables		Human-error			Technical-error		
		N	M	SD	N	M	SD
Anger	PR Manager	49	3.24	1.44	48	2.51	1.10
	CEO	48	3.39	1.31	47	2.34	1.22
Sympathy	PR Manager	49	2.33	.75	48	2.95	.98
	CEO	48	3.21	1.09	47	3.37	1.05
Brand Trust	PR Manager	49	2.23	.79	48	2.80	.89
	CEO	48	2.85	1.08	47	3.05	1.03
Purchase Intentions	PR Manager	49	2.46	.98	48	2.89	.97
	CEO	48	2.88	1.21	47	3.26	1.26

Table 17

*ANOVA Effects of Brand Crisis Type and Message Source*

<b>Dependent Variables</b>	<b>Sum of sq.</b>	<b>df</b>	<b>Mean sq.</b>	<b>F</b>	<b>Sig.</b>
<b>Anger</b>	1.11	1	1.11	1.61	.21
<b>Sympathy</b>	2.34	1	2.34	7.04	.01
<b>Brand Trust</b>	1.58	1	1.58	3.26	.07
<b>Purchase Intentions</b>	.02	1	.02	.05	.82

#### 4.5 Mediation Analysis: Brand Trust

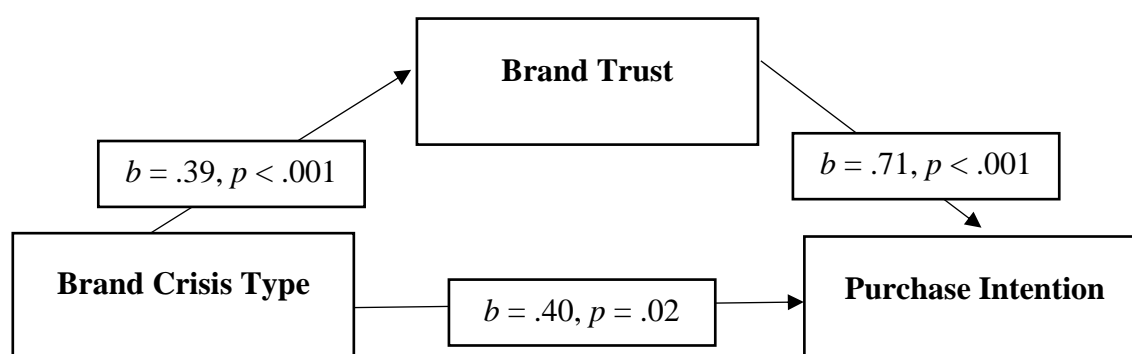
Three separate mediation analyses were done using the approach described by Preacher and Hayes (Hayes, 2013) to explore whether brand trust mediates the relationship between the three independent variables and purchase intentions.

##### 4.5.1 Crisis type, Brand Trust, and Purchase Intentions

The mediation analysis found that brand crisis type had a significant indirect influence on purchase intention via brand trust ( $b = .28$ , 95% BCa CI = [.08,.47]). This means that the trust that stakeholders have in the brand can explain 40% of the variation in purchase intentions. Hypothesis 7a was confirmed.

Figure 7

*Mediating Effect of Brand Trust*

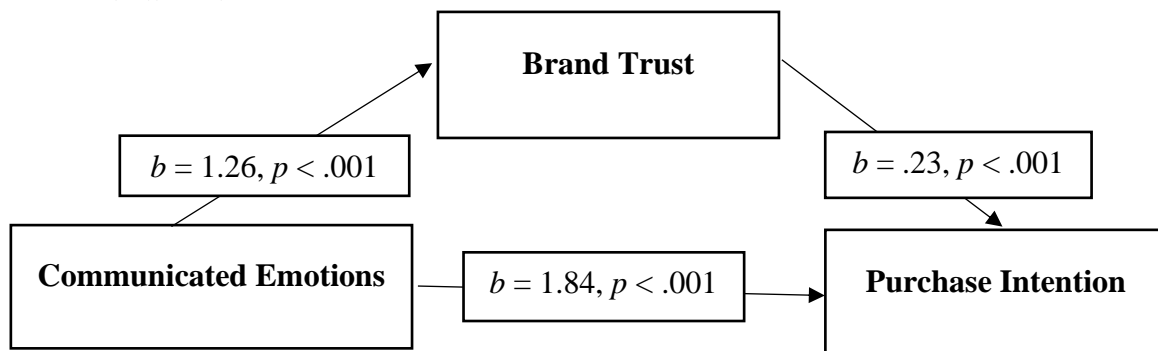


#### 4.5.2 Communicated Emotions, Brand Trust, and Purchase Intentions

The mediation analysis showed that communicated emotions had a significant indirect influence on purchase intention via brand trust ( $b = .29$ , 95% BCa CI = [.13,.46]). Indicating that brand trust accounts for 29% of the variation in purchase intentions. Hypothesis 7b was confirmed. The model is illustrated in Figure 8.

Figure 8

*Mediating Effect of Brand Trust*



#### 4.5.3 Message Source, Brand Trust, and Purchase Intentions

The mediation analysis revealed that message source had a significant indirect effect on purchase intention via brand trust ( $b = .31$ , 95% BCa CI = [.10,.50]). Thus, brand trust explains 31% of the variation in purchase intentions. Hypothesis 7c was confirmed. The model is illustrated in Figure 9.

Figure 9

*Mediating Effect of Brand Trust*

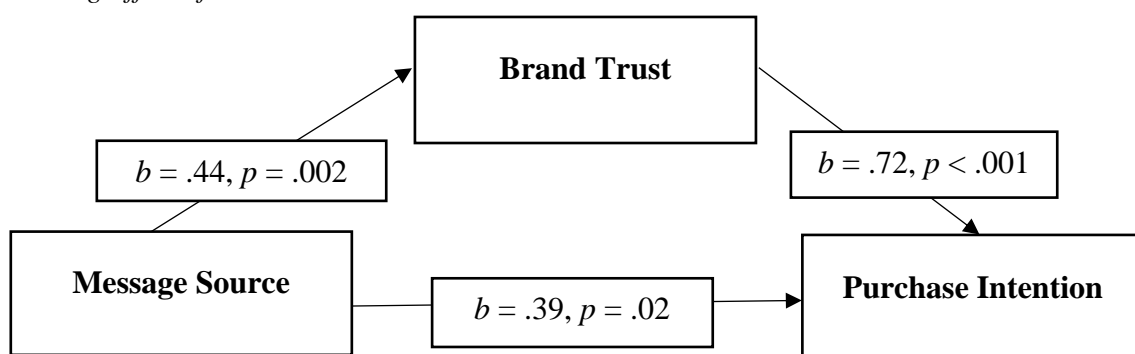


Table 18

*Overview of hypothesis and corresponding results*

No	Hypothesis	Results
H1	Stakeholders will experience higher levels of (a) anger and lower levels of (b) sympathy (c) brand trust and (d) purchase intentions when the crisis is framed as a human-error product harm crisis compared to a technical-error product harm crisis.	Supported: H1a, H1b, H1c, H1d
H2	Stakeholders will experience lower levels of (a) anger and higher levels of (b) sympathy (c) brand trust and (d) purchase intention when organizations or brands communicate regrets compared to no regrets.	Supported: H2a, H2b, H2c, H2d
H3	Stakeholders will experience lower levels of (a) anger and higher levels of (b) sympathy (c) brand trust and (d) purchase intentions anger when a brand crisis message is delivered by a CEO compared to a general company spokesperson	Supported: H3b, H3c, H3d Not supported: H3a
H4	Organizations/brands communicating regrets will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intention than those communicating no emotions. And this effect will be more profound for technical-error product harm crises than human-error product harm crises.	Not Supported
H5	Organizations/brands communicating regrets will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intentions than those communicating no emotions. And this effect will be more profound when a crisis message is delivered by a CEO than a general company spokesperson.	Supported: H5b, H5c, H5d Not supported: H5a
H6	When a crisis message is delivered by a CEO (as opposed to a general company spokesperson), organizations/brands facing technical-error product harm will experience lower levels of (a) anger, and higher levels of (b) sympathy, (c) brand trust, and (d) purchase intentions than those facing human-error product harm crisis	Supported: H6b Not supported: H6a, H6c, H6d
H7	brand trust mediates the relationship between (a) brand crisis type, (b) communicated emotions, (c) message source, and purchase intentions.	Supported: 7a, 7b, 7c

## **5. Discussion of Findings**

The uncertainty and negative outcome associated with brand crises create emotional experiences for both the brand or organization and its stakeholders. This may also potentially negatively affect the stakeholders' emotions, brand trust, and purchase intentions. Past studies have shown that the type of brand crisis, the entities or personalities that communicate about the crisis, and the emotions that are communicated to the stakeholders during a brand crisis can positively influence the stakeholders' post-crisis behavior. However, studies in this domain are very limited, warranting the need for further investigations.

Therefore, the purpose of this research was to fill in this gap by examining the extent to which brand crisis type, communicated emotions, and message source influences stakeholders' emotions, brand trust, and purchase intentions. Additionally, stakeholders' emotions and brand trust were examined as mediating variables.

### **5.1 Brand Crisis Type**

Brand crisis type had an effect on stakeholders' emotions (i.e., anger and sympathy). The findings showed that an organization or brand facing a human-error product harm crisis experience higher levels of anger and lower levels of sympathy among its stakeholders than those in a technical-error product harm crisis. These findings are in line with those made in previous studies (e.g., Weiner, 1985; Weiner et al., 1987; Coombs, 2004; Weiner, 2005; Coombs & Holladay, 2005; Coombs, 2007b) that stakeholders who perceive that an organization or brand has high attribution of crisis responsibility will experience high levels of negative emotions such as anger and less positive emotions such as sympathy. In this case, by admitting to the fact that an employee made a mistake in the production line leading to the crisis, the brand has shown that it took certain improper activities that placed the lives of its



stakeholders in danger. As a result, the stakeholders will express more anger and less sympathy towards the brand or organization. This indicates that different crisis types trigger different stakeholder emotional reactions.

Brand trust appeared to be the direct result of the brand crisis type. Human-error product harm crisis resulted in lower brand trust than technical-error product harm crisis. This is in line with what has been previously found in the literature that stakeholders are less likely to trust a brand if they perceive that the brand has a high attribution of crisis responsibility (Beldad et al., 2018; Coombs & Holladay, 2006; Hegner et al., 2018). A brand crisis creates a situation in which stakeholders' trust in the brand or organization can be destroyed (Webb, 1996; Coombs, 2006). As a result, stakeholders who perceive that the actions of a brand or organization do not guarantee their safety will inevitably experience a decline in their trust in that brand.

Purchase intentions were determined by the brand crises type. Human-error product harm crises led to lower purchase intentions than technical-error product harm. This result can be explained by looking into the clear difference between the cause of the crisis or the degree of responsibility in the crisis. According to Coombs (2007a), a technical-error product harm crisis is an uncontrollable or unintentional event with a low degree of crisis attribution, whereas a human-error product harm crisis is a purposeful crisis with a high level of crisis responsibility. As a result, stakeholders who believe a brand or organization failed to safeguard them may have reduced purchase intentions (e.g., Coombs & Holladay, 2007; Coombs, 2007b; Hegner et al., 2018; Beldad et al., 2018). Similarly, those who believe that the organization's or brand's actions that led to the crisis were unintentional would have favorable purchasing intentions.

## 5.2 Communicated Emotions

Stakeholders expressed higher levels of (a) sympathy (b) brand trust (c) purchase intention, and lower levels of (d) anger when organizations or brands communicate regrets compared to no regrets.

Communicated emotion had an effect on stakeholders' emotions (i.e., anger and sympathy). The findings showed that an organization or brand that expresses regret in its crisis communication message will cause higher levels of sympathy and lower levels of anger among its stakeholders than brands or organizations that express no regret. These findings are in line with those in previous studies (e.g., van der Meer & Verhoeven, 2014; Pace et al., 2010; Wesseling et al., 2007) showing that the expression of regret when the organization or brand has high crisis responsibility helps the organizations to mitigate the negative effect of the crisis. This is because the expressed emotion serves a vital social role by aiding the stakeholders' interpretation of the effectiveness of the crisis message, as well as providing information about the sender's motives and concern for the public's well-being (van der Meer & Verhoeven, 2014). In this case, by expressing regret, the brand or organization is also in a way showing that they feel bad for their involvement or role in the crisis (Pace et al., 2010). Thus, the communicated emotion has the potential to influence stakeholders' post-crisis behaviors.

Communicated emotions influenced brand trust. Brands or organizations that integrate emotions such as regret in their crisis message will have higher levels of brand trust among their stakeholders. This is in line with what has been previously shown that stakeholders are more likely to have favorable post-crisis behavior (e.g., brand trust) towards a brand or organization that shows that they feel sorry for their involvement or role in the crisis (Wesseling et al., 2007; Pace et al., 2010; Coombs et al., 2010; van der Meer & Verhoeven, 2014). One explanation for these findings might be that the expression of regrets leads stakeholders to believe that the organization or brand is concerned about their well-being. This consideration

impacts stakeholders' perceptions of the organization's or brand's benevolence, which is a factor affecting customer trust, according to some academics (e.g., Mayer et al., 1995).

Communicated emotions showed an effect on purchase intentions. Expressing regrets in a crisis message resulted in higher purchase intentions than when no regret was communicated. These findings are in line with those found in previous studies (e.g., van der Meer & Verhoeven, 2014; Utz et al., 2013; Wesseling et al., 2007; Kim & Cameron, 2011) who observed that communicating emotions about a crisis event provides stakeholders with direct information for evaluating the organization or brand. The emotions expressed provide the organization or brand a human and emphatic face, which can elicit empathetic reactions associated with positive post-crisis behaviors such as purchase intentions (van der Meer & Verhoeven, 2014). Therefore, stakeholders who perceive that a brand or organization is sorry for its actions may have favorable purchase intentions towards the brand than those who do not express regret.

### **5.3 Message Source**

It has been established previously that individuals or entities who speak on behalf of an organization in crisis influences stakeholders' post-crisis behavior outcomes. The results showed that when CEOs act as spokesperson for an organization or brand in crisis, it leads to higher levels of sympathy than when a general company spokesperson speaks on behalf of the organization or brand. Further, brand trust was also determined by message source. The findings show that CEOs speaking on behalf of an organization or brand in crisis will lead to higher brand trust than a general company spokesperson. Additionally, the results showed that CEOs speaking on behalf of an organization in crisis leads to higher purchase intentions than when a general company spokesperson was the spokesperson. These findings are in line with those made in previous studies that the CEO, whether a well-known public personality or not, will have a positive influence on how stakeholders react to a crisis (Verhoeven et al., 2012; Laufer

et al., 2018). CEOs are perceived to be more authoritative and powerful, as well as more credible, than general company spokespersons (Wogalter & Mayhorn, 2008; Lucero et al., 2009). As a consequence, these considerations lead to more favorable post-crisis behavior outcomes across stakeholders, such as increased levels of sympathy, brand trust, and purchase intentions.

Surprisingly, anger was not determined by the message source. An inspection of the mean scores also revealed that individuals who saw crisis messages from either the CEO or PR Manager reported the same levels of anger. It could be the case that the crisis scenario triggers affective states in the respondents' lives which buffers the effect of the message source. This suggestion can be examined further. Another possible reason for these findings is that it is easier to direct one's anger at a brand or business in crisis rather than an unknown person. This perspective renders the CEO, who is unknown to the participants, unsuccessful in mitigating the stakeholders' anger towards the organization.

#### **5.4 Interaction Effect: Communicated Emotions and Crisis Type**

The most shocking result was that the interaction between the communicated emotions and crisis type did not influence any of the four dependent measures (i.e., anger, sympathy, brand trust, and purchase intentions). Therefore, it cannot be concluded which strategy and combination of communicated emotions and brand crisis type is most suitable for this specific type of crisis utilized as a stimulus.

#### **5.5 Interaction Effect: Communicated Emotions and Message Source**

By investigating the interplay between the communicated emotions and the message source. This study demonstrates that it matters when emotions are expressed during a product

harm crisis, especially by the CEO of an organization. When the CEO expressed regrets, sympathy, brand trust, and purchase intentions increased more than when no regret was communicated. In contrast, when the CEO functioned as the organization's or brand's spokesman, the scores remained higher than when a general company spokesperson represented the organization or brand. However, no interaction impact was found for anger. These findings partially support what has been stated in the literature (e.g., (Semin & Manstead, 1981; Struthers et al., 2008; Hargie et al., 2010), that the expression of regret helps reduce negative perceptions of the wrongdoer, dispels anger that stakeholders feel towards the wrongdoer, and triggers public sympathy. Further, Laufer et al. (2018) also observed that when CEOs act as the spokesperson for an organization during a product harm crisis relative to a general company spokesperson, the stakeholders' level of trust in the brand is increased and this in turn also increases their future purchase intentions. This could be explained by the fact that the communicated emotions provide stakeholders with information about the spokesperson, so the expression of regrets by the CEO – who is typically perceived to be more powerful and credible than the general company spokesperson – is perceived more favorably than a general company spokesperson.

## **5.6 Brand Crisis Type and Message Source**

The interaction between brand crisis types and message source hardly showed any interaction effect on the dependent measures. The only interaction effect observed was with sympathy. The findings revealed that when CEOs acted as the spokesperson for the organization or brand facing a technical-error product harm crisis, it resulted in higher levels of sympathy compared to a human-error product harm crisis. Further, when the CEOs acted as the spokesperson in both the technical-error and human-error product harm crisis, it caused higher levels of sympathy than when a PR manager represented the organization. One possible reason

for the findings' direction is that, in comparison to a general corporate spokesman, the function of the CEO and their duty appear essential and have a satisfying symbolic demand for hope, direction, and guidance in extremely uncertain crisis scenarios. People in such uncertain conditions tend to look up to those with the authority to effect change. As a result, it appears that the CEO is a more effective spokesperson than a general company spokesperson. The findings also seem to corroborate those observations made by Turk et al. (2012) that CEOs should be visible in all crises. However, since the interaction effect only worked on sympathy, it cannot be claimed that the CEO acting as the spokesperson for the organization or brand in product-harm crises is always effective.

Furthermore, based on the findings it cannot be concluded which strategy and combination of brand crisis type and message source is most suitable for influencing the brand trust and purchase intentions. All the same, the direct effect of these variables has already shown that crises with low attribution of responsibility have more favorable post-crisis behavior outcomes than those with high attribution of responsibility and that using a CEO as a spokesperson (rather than a general company spokesperson) leads to higher brand trust and purchase intentions.

## **5.7 Mediating Role of Stakeholders' emotions and Brand Trust**

Brand trust was hypothesized to act as a mediator between the three independent variables and the variable purchase intentions. The findings support this assumption, demonstrating that when it comes to brand crisis type, communicated emotions, and message source, higher levels of trust in the brand are linked to higher levels of purchase intentions. This supports the findings of Aydin et al. (2014) and Dam (2020) that brand trust has a positive effect on purchase intentions. This is because people often buy from brands they know and trust. Thus,

people's willingness to purchase from a brand is influenced by the level of trust that they have in that brand.

## **5.8 Practical Implications of the Study**

The type of crisis that a brand or organization is dealing with has a different impact on how stakeholders connect with the brand or organization. According to the findings, crises with significant attribution of responsibility are more likely to elicit negative public reactions if brands or organizations fail to respond appropriately. As a result, determining the proper response message should first begin with organizations carefully evaluating the extent of their involvement in the crisis as this will inform the next course of action.

In product harm crisis, the integration of emotions in crisis message was found to be a very successful approach. Specifically, expressing regret during a product harm crisis contributed substantially to reducing the negative perceptions about the misdeeds of the brand, dispelling the anger that the public feels towards the brand, and also triggering public sympathy. However, this approach does not always work. As was demonstrated, when CEOs expressed regret in the human-error product harm crisis, it resulted in high levels of negative emotions than when they communicated no emotions. However, communicating regret during a technical-error product harm crisis seems very effective. Therefore, organizations can benefit when the emotions communicated match the crisis.

Furthermore, who represents the organization during a crisis makes a difference. In contrast to prior research that stated the CEO should be visible in all crises, the evidence obtained in this study suggests that using the CEO as a spokesperson in all crises is not always helpful. In a technical-error product harm crisis, CEOs were found to be more effective than in

a human-error product harm crisis. Likewise, PR managers were a good fit for the human-error product harm crisis than the technical-error product harm crisis.

Finally, careful consideration should be given to the combination of brand crisis type, communicated emotions, and message source. Using a CEO in a human-error product harm crisis to express regrets seems counterintuitive. Organizations or brands can communicate about their human-error product harm crisis using a general company spokesperson. Also, CEOs are viewed more favorably than general company spokespersons in technical-error product harm crises. As a result, if brands want to increase public sympathy and diffuse negative emotions such as anger in technical-error product harm crisis, employing the CEO is the right strategy.

## **5.9 Limitations and Suggestions for future studies**

The experimental procedures used in this study have proven to be a useful way of examining the effect of communicated emotions, brand crisis type, and message, some adjustments can still be made.

First, prospective studies need to consider several personal characteristics of the participants such as age, gender, educational background, and product likeness because it might moderate the effects observed. For example, people who have high preference for a particular product involved in the crisis may react differently than those who have a low preference for the product. It is also likely that the effects observed differ for both men and women, as well as the young and old.

Second, the current study focused only on educated participants and participants from different cultural groups. It is possible that the effects observed will differ among different samples. It is also very likely that the effects found in this study will differ among the different



populations or cultural backgrounds. Participants from Asia, for example, maybe more forgiving than those from Europe. This, however, was not considered in this study. As a result, prospective studies can consider using a more homogenous sample to give more insights.

Third, prospective studies can also use a qualitative approach to gain newer insights than was allowed with the use of the experiment of this study. Understanding the phenomenon through the words and perspective of the study subject will give better insights.

## **6. Conclusion**

The study's findings indicated that the emotions communicated by the organization, as well as the source of the crisis message, are critical in handling an organization's crisis. This is because, despite the harm created by a crisis, the emotions transmitted by the appropriate message source can repair trust and boost confidence in future encounters between an organization and its stakeholders. In extremely uncertain crisis contexts, the message source's function and responsibilities appear essential and have a satisfying symbolic demand for hope, direction, and guidance. As a result, the CEO seems to be a more effective speaker than a general corporate spokesperson, particularly when organizations face a product harm crisis. However, this effect may be heavily dependent on the extent of crisis attribution responsibility. For example, in a high-attribution crisis, such as the human-error product harm crisis, the emotions communicated by the CEO did not affect the stakeholders' behavior outcomes. As a result, crisis communication should always be approached holistically, and organizations or brands must select the appropriate crisis communication strategy for the type of crisis they are dealing with.

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## 8. Appendix

### Questionnaire

Consent

...

Dear participant,

Thank you for taking the time to participate in my study, as part of the academic requirements for my master's degree in technology and communication at the University of Twente.

This study aims at understanding the impact of corporate communication on consumer responses. Participating in the study will take approximately 10 minutes. **Please read all questions carefully and pay close attention to the presented statements.** 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 questions, do not hesitate to contact me.

Kweku Ndamah Arthur

k.ndamaharthur@student.utwente.nl

Q1

**Age**

Please Select ▼

Q2

**Gender**

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer not to say

Q3

**Level of education**

- ☐ Bachelor
- ☐ Pre-master
- ☐ Master
- ☐ Doctorate

Q4 | List of Countries

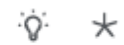
**Which country are you from?**

Yemen ▼

Choco\_Stimuli



Q5



**I like chocolates**

Strongly disagree      Somewhat disagree      Neither agree nor disagree      Somewhat agree      Strongly agree

☐      ☐      ☐      ☐      ☐

Q6



**I regularly eat chocolates**

Strongly disagree      Somewhat disagree      Neither agree nor disagree      Somewhat agree      Strongly agree

☐      ☐      ☐      ☐      ☐



Q7



**I have heard of the CAKER brand before.**

Strongly disagree ☐      Somewhat disagree ☐      Neither agree nor disagree ☐      Somewhat agree ☐      Strongly agree ☐

---

Q8



**I am aware of the existence of CAKER.**

Strongly disagree ☐      Somewhat disagree ☐      Neither agree nor disagree ☐      Somewhat agree ☐      Strongly agree ☐

---

Facebook\_Post

**Please read the following introduction carefully.**

CAKER is a popular Dutch-based chocolate manufacturing company that makes different varieties of chocolate product including chocolate bars, chocolate candies, chocolate snacks, and chocolate spread for its customers.

**Imagine that you are a consumer of CAKER chocolate, and while scrolling through your Facebook timeline, you found this news report about CAKER.**



## EXPERIMENTAL STIMULUS

**CAKER**  
King of Chocolates



### PRESS RELEASE

You have probably heard or read that we have serious problems with our products sent to the market about a month ago. Some of our chocolate bar sent to Belgium have been reported to contain pieces of plastic. An internal investigation showed that an employee mistake in the production caused the plastic to enter the product. So far, twelve (12) persons who developed stomach pains after eating the chocolate bar are receiving treatment.

As a precaution, we are recalling all our chocolate bar manufactured within the last 4 weeks from the market. Also, if you already consumed our products and feeling dizzy, we advice that you contact your general practitioner.

*Carel van Wijk*  
**CHIEF EXECUTIVE OFFICER**

[www.caker.com](http://www.caker.com) | [@caker](https://twitter.com/caker) | +3160030020

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King of Chocolates



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Finally, we will like to express our deepest regret for what has happened especially to our affected customers.

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## PRESS RELEASE

You have probably heard or read that we have serious problems with our products sent to the market about a month ago. Some of our chocolate bar sent to Belgium have been reported to contain salmonella bacteria.

An internal investigation showed that our newly acquired disinfectant machines were unable to sanitize the chocolate properly. So far, twelve (12) persons who developed stomach pains after eating the chocolate bar are receiving treatment.

As a precaution, we are recalling all our chocolate bar manufactured within the last 4 weeks from the market. Also, if you already consumed our products and feeling dizzy, we advice that you contact your general practitioner.

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## Brand Crisis Type Manipulation Check

Q9



**Do you perceive this crisis as the result of ...**

Employee mistake

Problem with the machine

☐
☐
☐
☐
☐

Q10



**Who do you recall speaking on behalf of CAKER?**

Branch Manager

Chief Executive Officer

Brand Manager

PR Manager

General Manager

☐
☐
☐
☐
☐

## Communicated Emotions Manipulation Check

Q13



**How did CAKER communicate the crisis message?**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
CAKER expressed regrets about the crisis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CAKER expressed no emotions about the crisis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Anger

Q15\_18



**After reading the message from CAKER**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel annoyed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel disgusted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel outraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Sympathy

Q19\_22



**After reading the message from CAKER,**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel sympathetic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel sorry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel compassion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel empathy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Brand Trust

Q23\_25


**CAKER is ...**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
a trustworthy brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a reliable brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
concerned about its customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Purchase Intentions

Q26


**I would consider buying from CAKER in the future**

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27


**I would purchase CAKER's products if I have the opportunity in the future.**

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q28


**I dont see buying a chocolate from CAKER in the future**

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q29

**I would not hesitate to buy chocolate from CAKER**

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Survey

We thank you for your time spent taking this survey. Your response has been recorded.

Please note that both the brand name (CAKER) and the case that you just read are fictional.