EFFECTS OF EXPRESSING EMOTION AND ALTERING LOCO COLOR IN ORGANIZATIONAL CRISIS RESPONSES

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EFFECTS OF EXPRESSING EMOTION AND ALTERING LOCO COLOR
IN ORGANIZATIONAL CRISIS RESPONSES

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ABSTRACT

A crisis is inevitable. Any organization needs crisis communication plans and response strategies to protect themselves from reputational damage. This study examines whether employing sadness-expressive words and black-and-white logos in crisis response messages can be an effective strategy that leads to a more positive organizational reputation in the wake of a crisis. A 2 (emotion: presence of sadness vs. absence) x 2 (logo color: standard vs. black-and-white) within-subject factorial experiment was conducted with 188 participants. The experimental stimuli were crisis response messages in the form of Facebook posts from four existing airline companies, including Air France, Malaysia Airlines, AirAsia, and Germanwings, in response to their real-life crisis incidents. Participants were introduced to each crisis (a total of 4) through a news article developed from a previously published story. Then, after each article reporting on the airline crisis, they were exposed to a response message from the airline. The findings show that when organizations express sadness in their messages, their sad emotion is transferred to the readers and leads to a higher organizational reputation and behavioral intention. Also, the use of a black-and-white logo in the context of sadness-present crisis response messages results in a better organizational reputation.
CHAPTER 1: INTRODUCTION

When American Airlines Flight 587, bound from New York to the Dominican Republic, crashed into a Queens, New York, neighborhood in November 2001, the airline grayed out any color on the website of its parent company (Downing, 2004). The site remained grayed out for about one month (Downing, 2004). More recently, airliner Germanwings and its parent company Lufthansa altered their logos to black-and-white on social media after the crash of Germanwings Flight 9525 in a remote area of the French Alps in March 2015 (Bradley, 2015). The logos ran with the hashtag #indeepsorrow (“#indeepsorrow,” 2015). Also, the homepage of Germanwings, which was grayed out, published the emotional message “4U9525 We are in mourning” on top of the page (“Online crisis,” 2015). By employing emotional words expressing sadness and the black-and-white color scheme, these airline companies were reflecting the solemn nature of the crises, which resulted in hundreds of casualties (Downing, 2004).

A crisis is inevitable in nature. And many organizations strive to manage crisis situations by developing and executing effective strategies in their crisis response messages. To this effect, most crisis communication research has devoted its attention to how organizations can communicate effectively with the public in times of crisis “to minimize or restore organizational reputation damage” (Claeys, Cauberghe & Leysen, 2013, p. 294). However, it has been only recent that crisis communication research started investigating how emotion can influence the reputation of organizations (Van der Meer & Verhoeven, 2014). The existing literature in this relatively new and not as widely researched topic examines the role of emotions that are either expressed by organizations in their crisis responses or experienced by the public. It was deemed that the majority of these previous studies focus on the latter because of organizations’ interest in
the felt emotions (Claeys, et al. 2013). It is well recognized that the emotion experienced by the public during a crisis often influences the evaluation of organizations. However, little research is done to examine how emotion as a strategic component, which organizations employ in their crisis response messages, would affect the evaluation of organizations. The current study is designed to fill the gap in the literature.

Color is an inseparable part of our daily lives that is present in everything that we perceive (Kaya & Epps, 2004). Previous research has argued that color plays significant roles in marketing and advertising, from creating associations with certain images to shaping people’s emotions to conveying meanings and messages that form a brand’s identity and position (Kaya & Epps, 2004; Labrecque, Patrick, & Milne, 2013; Puzakova, Kwak, Ramanathan, & Rocereto, 2016; Schuldt, 2013). Further, it was found that colors have a significant impact on individuals’ experienced emotion (Puzakova, Kwak, Ramanathan, & Rocereto, 2016). Based on that, this study hypothesizes that the color employed in organization logos can affect the audience’s emotional responses in the context of crisis response messages.

This study defines emotional words expressing an organization’s condolence and the implementation of a black-and-white logo as messages features influencing the audience’s emotional responses. Then, the study investigates how a black-and-white logo and emotional words (i.e., expressing sadness) in crisis response messages can influence the audience’s emotional experience, message evaluation, and thus organizational reputation in the wake of a crisis. The findings from this study will provide practical implications for public relations practitioners to develop effective crisis communication strategies.
Crisis communication is broadly defined as “the collection, processing, and dissemination of information required to address a crisis situation” (Coombs, 2010, p. 20). Over the past decade, crisis communication research has grown rapidly and massively (Kim & Cameron, 2011). Among the growing areas of research in this field lies the study of emotion and its effects. Emotion is important because it can act as information and help guide judgments and decision-making (Kim & Cameron, 2011). For example, communicated emotion provides implicit information about the sender, such as his/her trait and intention (Wesseling, 2008). Then, the communicated emotion is used as a cue for the receiver to make judgments and adjust his/her behaviors (Wesseling, 2008). In a crisis, “emotions are one of the anchors in the publics’ interpretation of what is unfolding, changing, and shaping” (Jin, Pang, & Cameron, 2010, p. 429).

Previous studies focusing on emotion in crisis communication are based on either the dimensional or discrete emotion perspective. These two basic emotion models have guided the vast majority of communication research (Nabi, 2010). The dimensional theory of emotion connects emotion with basic motivational states characterized by two organizing dimensions, valence and arousal (Bolls, 2010). Valence means the pleasant versus unpleasant emotional responding and guides motivated behavior ranging from approach (pleasant) to avoid (unpleasant) whereas arousal indicates the strength of approach and avoidance responses, ranging from calm to arousing (Bolls, 2010). The dimensional theory of emotion has been employed in the context of communication processes and effects (Bolls, 2010). For example,
research from this view focuses on the relationship between the degree of positive or negative emotion elicited by a stimulus and individuals’ cognitive and behavioral outcomes (Nabi, 2010).

On the other hand, the discrete emotion perspective focuses more on specific, categorical emotional states generated by cognitive appraisals (Nabi, 2010). This emotion view, while it incorporates the dimensional perspective in that valence and intensity are assessed, goes much further by capturing the additional elements that help explain human action more fully (Nabi, 2010). The discrete emotion view enables identifying unique emotions based on thought patterns across different appraisal dimensions and predicting both the onset and outcomes of the emotional experiences (Nabi, 2010). For example, if people lose their family member, they are likely to experience sadness and show mourning behavior. If people get cut off in traffic, they are likely to feel angry and behave aggressively. These emotional situations would have been simply generalized as “intense, negative motivational states” if they were assessed only with the dimensional emotion view (Nabi, 2010). There are five discrete negative emotions individuals experience commonly, which include fear, anger, sadness, disgust, and guilt (Nabi, 1999). It was suggested that anger and sadness are common and often seen as natural emotional reactions during crisis events (Madera & Smith, 2009).

**Sadness.** Sadness is viewed as the most commonly experienced discrete negative emotion. Sadness is elicited primarily by physical or psychological loss or separation, either real or imagined, and failure to achieve a goal, and it tends to make people inactive or withdraw into themselves to solicit comfort (Nabi, 1999). Also, sadness is associated with warmth, concern, affiliation, and sympathy (Madera & Smith, 2009). As concern and sympathy are close indicators of emotional empathy, a leader expressing sadness during a crisis situation can be perceived as
more appropriate (Madera & Smith, 2009). Despite the existing research on the use of discrete emotions, little is known about the impact of sadness in the context of persuasion (Claeys, Cauberghe, & Leysen, 2013). This study examines how expressing sadness (i.e., implementation of emotional words) would influence the audience’s emotional responses, thus organizational reputation in the context of organizational crisis response messages.

**Role of Emotions Communicated by Organizations**

Although there is a dearth of crisis communication research conducted on the emotions expressed by organizations, the existing literature provides an overall picture of the roles that communicated emotions play. Van der Meer and Verhoeven (2014) investigated the effects of organizations’ crisis response strategies and communication of emotions on organizational reputation in times of crisis. Specifically, this study measured the changes in the resulting reputation of an organization using the “diminish” or “rebuild” crisis response strategy and communicating shame, regret, or no emotions. The finding shows that organizational reputation was not only affected by those response strategies, but also by the crisis response message that incorporated the organization’s feelings of shame or regret about the crisis (Van der Meer & Verhoeven, 2014). The response message that expressed regret and shame resulted in a significantly higher organizational reputation as compared to the message without emotions (Van der Meer & Verhoeven, 2014).

Similarly, Wesseling (2008) addressed the role of communicating shame and regret in the context of an organizational crisis. By employing an experiment, the study compared the effect of a CEO expressing regret to a CEO expressing shame on the amount of trust that the public allocate to the CEO’s discredited organization. The experimental stimuli included a fictitious newspaper article that an insurance company had falsely rejected hundreds of its
clients’ claims. The CEO was quoted in the article saying either he feels ashamed or regretful over the company’s wrongdoing. Results show that female participants allocated more trust to the organization of the shameful CEO than that of the regretful CEO and this effect of the two communicated emotions was mediated by the higher level of integrity that the shameful CEO was perceived to have (Wesseling, 2008). The study suggests that an effective crisis response message should integrate more than an acknowledgement of simple regret.

Claeys, Cauberghe, and Leysen (2013) also investigated the impact of expressing emotions in organizational crisis communication. The authors wanted to find out if spokespersons of an organization experiencing a crisis could express their emotions as opposed to communicating rationally. They examined the effect of expressing sadness on the organization’s reputation, specifically in the case of an ex-antecrisis timing strategy. One of the two crisis timing strategies that organizations can choose, the ex-antecrisis timing strategy is a self-disclosure strategy in which an organization takes the initiative and releases crisis information before third parties, such as the media and government, get involved (Claeys, Cauberghe, & Leysen, 2013). The finding showed that the ex-antecrisis timing strategy was more effective in minimizing crisis damage and in the case of this strategy, sadness expressed in a spokesperson’s response resulted in a better post-crisis reputation than rational message framing (Claeys, Cauberghe, & Leysen, 2013). In line with the prediction, the finding was that the expression of genuine sadness augmented the positive impact of self-disclosure to a greater extent. In addition, an important implication from this study is that expressing sadness in times of crisis can be perceived as sincerer.

Moreover, Kim and Cameron (2011) conducted similar empirical research on the role of emotions expressed in organizational crisis responses. In the experiment, participants’
mood was induced by reading news eliciting either anger or sadness about a fictitious cell phone battery explosion case before exposure to the experimental stimuli. Then, they were exposed to a corporate response message with either presence or absence of emotional appeals, among other manipulations. Based on the hypothesis that emotional appeals would have a positive impact on participants’ responses to the corporate messages, it was predicted that an interaction effect existed between anger- versus sadness-inducing news frames and the presence versus absence of emotional appeals on participants’ attitudes toward the responsible organization (Kim & Cameron, 2011). In specific, those exposed to an emotionally framed crisis were predicted to be more likely to accept a corporate response when the message contains intensive emotional appeals. Results showed that participants are more likely to have higher future behavioral intentions regarding the organization that uses emotional appeals in its crisis response message as compared to the organization that excludes emotions (Kim & Cameron, 2011). The interaction effect was also found to be significant but only among the participants in the sadness-inducing news condition. Those who read the battery explosion news that was framed to induce sadness showed relatively higher credibility perceptions, lower blame attributions, and more positive behavioral intentions in response to intensive emotional appeals (Kim & Cameron, 2011). In other words, emotions expressed in the organizational response played a more effective role for those experiencing sadness from reading the sadness-inducing news frame than for those experiencing anger. This finding provides an important insight that emotional appeals should be used with caution when communicated to the public who are exposed to anger-inducing news coverage of a crisis.
Taken together, previous research suggests that discrete emotions expressed in crisis responses play an important role in helping organizations better manage their crisis situations. Emotional displays can be used effectively by organizations in need of protection from reputational damage and the public’s negative perceptions.

**Emotional Contagion Theory**

Emotional states can be transferred from one person to another through the process of emotional contagion, defined as:

The tendency to automatically mimic and synchronize expressions, vocalizations, postures, and movements with those of another person’s and, consequently, to converge emotionally (Hatfield, Cacioppo, & Rapson, 1993, p. 96).

In other words, according to emotional contagion theory, people tend to imitate the emotional expressions and behaviors of their companions and come to feel pale reflections of their companions’ actual feelings (Hatfield, Cacioppo, & Rapson, 1993). This process can be explained in three stages.

**Mimicry.** The tendency of mimicry has been observed in a great deal of research since the 1700s (Hatfield, Cacioppo, & Rapson, 1993). Facial mimicry, for example, is well documented in the findings that “people’s cognitive responses and facial expressions tend to reflect the subtlest of moment-to-moment changes in emotional expressions of those they observe,” (Hatfield, Rapson, & Le, 2009, p. 4). When Swedish college students were asked to study photographs of target persons who displayed different emotions, such as happy, sad, angry, and fearful, they showed different facial activity patterns (Hatfield, Rapson, & Le, 2009). Participants who observed happy facial expressions showed increased muscular activity over their cheek muscle region. On the other hand, the brow muscle region displayed increased
muscular activity when people observed angry facial expressions (Hatfield, Rapson, & Le, 2009). In addition to facial mimicry, people are capable of automatically mimicking and synchronizing their vocal productions, postures, and movements with those around them (Hatfield, Rapson, & Le, 2009).

**Feedback.** The mimicry of different expressions, whether facial, vocal, or postural, serves as feedback that affects people’s emotional experiences (Hatfield, Rapson, & Le, 2009). Some researchers tested the effect of facial feedback by arranging the faces of participants into different emotional expressions using electrodes attached to the participants’ faces in various areas (Hatfield, Rapson, & Le, 2009). Results revealed that changes in the facial musculature shaped emotional attributions. Participants in the frown condition with their jaws clenched and eyebrows down reported being angrier than those in the smile condition (Hatfield, Rapson, & Le, 2009). Similar results were found in the case of vocal feedback. In the study by Hatfield, Hsee, Costello, Weisman, and Denney (1995), participants listened to a cassette tape containing one of six sound patterns (joy, love/tenderness, sadness, fear, anger, or a neutral control pattern). When they were asked to reproduce the sounds as exactly as possible, the researchers found that participants’ emotions were affected in the predicted ways by the specific sounds they produced (Hatfield, Rapson, & Le, 2009).

**Contagion.** As a result, people tend to catch one another’s emotions (Hatfield, Rapson, & Le, 2009). As people feel emotions consistent with the facial, vocal, and postural expressions they adopt from automatically mimicking others, they are able to feel themselves into the emotional lives of others (Hatfield, Rapson, & Le, 2009).

Most research on emotional contagion has focused more heavily on the transmission of emotions in communicative environments where nonverbal cues act as the primary emotional
signals (Hancock, Gee, Ciaccio, & Lin, 2008). This is because the process of emotional contagion, as explained above, occurs in personal interactions in which individuals have an opportunity to see or hear the expressions of others. However, empirical evidence has proven in recent years that emotional contagion can be spread in the text-based electronic communication context without face-to-face interactions. For instance, Hancock and colleagues (2008) found that participants in a dyadic interaction who were induced to feel a negative emotion typed shorter messages, used more negative affect words and were slow at exchanging messages than those in the neutral emotion condition. These text-based communications of emotion were detected by partners interacting through an instant messenger. Not only did these partners sense the participants’ negative emotional states, but they also experienced emotional contagion as they reported that they themselves felt less positively. Similarly, but more extensively, Cheshin, Rafaeli, and Bos (2011) demonstrated that emotional contagion can occur in teams relying only on text-based communication. In an experiment study, the authors gave four-person virtual teams a task in which each member was to negotiate product buying and selling with one another using only an asynchronous messaging system, which was similar to email. During the task, anger and happiness were manipulated through a text-based communication of a confederate. For example, in response to an offered price for products, the confederate sent the participant an either anger- or happiness-induced reply. As predicted, the apparent anger and happiness of the confederate spread to other participants, and the emotion of team members also reflected the experimental condition (Cheshin, Rafaeli, and Bos, 2011). This finding that emotional states do transfer when communication is only text-based extends the presumption that nonverbal cues are critical for emotional contagion (Cheshin, Rafaeli, and Bos, 2011).
More recently, several studies concluded that emotions can be transferred in the context of social media. In an experiment using Facebook, Kramer, Guillory, and Hancock (2013) tested whether emotional contagion is possible in an online setting by reducing the amount of emotional content in the Facebook News Feed. The major finding was that participants who had positive content reduced in their feed used more negative words in their status updates. When negativity was reduced, people posted more positive updates (Kramer, Guillory, & Hancock, 2013). A similar result was highlighted in the experiment conducted by Coviello and colleagues (2014). To see the impact of Facebook users’ emotional expression on their friends’, the authors used rainfall as a source of variation that directly affected the users’ emotional expression. They measured whether the changes induced by rainfall predicted the changes in the friends’ emotional expression. They found that rainfall had a direct impact on the emotional content of the users’ status messages and it also affected the status messages of friends in other cities who were not experiencing rainfall (Coviello et al., 2014). The findings of these two empirical studies suggest that emotions expressed by social media users can influence their friends’ or followers’ emotional states.

Based on the previous research, emotional contagion can occur in the text-based setting without nonverbal cues. Therefore, the following hypothesis is proposed:

H1: Sadness-present crisis response messages will lead to a greater level of sadness than sadness-absent crisis response messages.

Sadness and Organizational Reputation

Examining the influence of specific emotions in the context of consumer marketing, Han, Lerner, and Keltner (2007) proposed that emotions can give rise to cognitive and motivational processes, which affect subsequent judgment and decision-making. These processes, summarized
as “appraisal tendencies,” according to the Appraisal-Tendency Framework (ATF), not only drive the depth of thought, but also the content of thought (Han, Lerner, & Keltner, 2007). As an example, the authors illustrated how appraisal dimensions of specific emotions influence the depth of thought by differentiating the effects of sadness and anger on judgments of blame. Whereas sadness triggers appraisal tendencies to perceive situational control, anger triggers appraisal tendencies to perceive individual control (Han, Lerner, & Keltner, 2007). As a result, sad people attribute blame to situational factors, and angry people attribute blame to other individuals within the environment. This suggests that in the context of an organizational crisis, sadness-induced people would attribute blame to other situational factors besides the organization as opposed to anger-induced people who would have strong blame attribution to the organization (Kim & Cameron, 2011). In a similar context, Choi and Lin (2009) concluded that emotions do influence how people perceive organizational reputation in a crisis. In a content analysis of consumer responses to the 2007 Mattel product recalls posted on online bulletin boards, they found that the public’s feelings of anger resulted in a negative evaluation of the company. Based on the previous findings, the present study expects that sadness evoked by a sadness-present crisis response message would influence people’s evaluation of the organization. Therefore, the following hypothesis is proposed:

H2: Sadness-present crisis response messages will result in a more positive organizational reputation than sadness-absent crisis response messages.

**Emotion and Color**

Color is a global marketing tool used to create, maintain, and modify brand images in the minds of customers (Madden, Hewett, & Roth, 2000). It plays a crucial role in corporate and brand-building cues, such as logos, packages, and displays (Madden, Hewett, & Roth, 2000). In
fact, the role of color employed in organization logos is what the present study aims to find out. In addition to testing emotional messages (i.e., expressing sadness in words) as a possible crisis response strategy, this study focuses on whether organizations can minimize reputational damage by altering the color of their logos.

Each color has three basic attributes: hue, saturation, and value (Labrecque & Milne, 2012). Hue of a color distinguishes one color from another; for example, the hue of blue is different from that of red (Kaya & Epps, 2004). Saturation refers to the amount of pigment in a color; low-saturated colors appear gray and washed out whereas high-saturated colors contain less gray and appear vivid (Labrecque & Milne, 2012). Finally, value describes the degree of lightness or darkness relative to a scale ranging from black to white (Labrecque & Milne, 2012). Black, white, and the shades of gray are called achromatic colors (Kaya and Epps, 2004).

**Associations.** Colors are associated with certain images and convey specific meanings. Prior research contends that red is often associated with dangers and mistakes; for example, errors are marked in red, and stop and warning traffic signs are also in red (Puzakova, Kwak, Ramanathan, & Rorereto, 2016). Blue, on the other hand, is associated with relaxation, calmness, peace, and hope (Kaya & Epps, 2004). In the food context, a widespread association between green and the concept “healthy” exists because green is the predominant color on the organic food label administered by the U.S. Department of Agriculture and it also appears frequently in the label design of other healthy products (Schuldt, 2013). This association was demonstrated when Schuldt (2013) found that green labels increase perceived healthfulness of food products. A candy bar with a green front-of-package calorie label was perceived as healthier than the same product with a red calorie label despite both labels displaying the same calorie information (Schuldt, 2013).
Associated images and meanings of colors tend to vary across cultures. Unlike some colors, such as red and blue, which share similar meaning associations in different countries, as evaluated in Madden, Hewett, and Roth (2000), the colors gold, orange, yellow, and purple are perceived to have culture-specific meanings. When asked to rate gold, orange, and yellow on 20 associations, respondents from Austria, Brazil, Canada, Colombia, Hong Kong, China, Taiwan, and the United States gave inconsistent answers without similar patterns in terms of meaning associations (Madden, Hewett, & Roth, 2000). Similarly, the color purple appeared to have different color perceptions across diverse cultures (Madden, Hewett, & Roth, 2000).

Respondents from the three Asian countries viewed purple as similar to black and brown, which held associations of sad and stale in all of the eight countries (Madden, Hewett, & Roth, 2000).

**Emotions.** It is widely recognized that colors have a significant impact on people’s emotions (Puzakova, Kwak, Ramanathan, & Rocereto, 2016). Compared to bright colors, dark colors, such as black, gray, and brown, have been associated with negative emotions. Studying the relationship between color and emotion among college students, Kaya and Epps (2004) found that for the achromatic colors, white attained more than 60 percent of positive emotional responses compared with only 19.4 percent and 7.1 percent positive responses for black and gray, respectively. A large number of students said the color black elicits negative emotions, such as sadness, depression, fear, and anger, because it reminds them of death, mourning, and tragic events, as well as darkness and night time (Kaya & Epps, 2004). The color gray was also associated with negative emotions, including the feelings of sadness, depression, anger, and fear. Similarly, children associated black and gray with sadness and anger (Kaya & Epps, 2004), and black and brown were designated as sad colors by primary (second and third grade) and college students (Madden, Hewett, & Roth, 2000). These findings confirm the results obtained by
Madden, Hewett, and Roth (2000), which showed strong associations between the colors black and brown and the feelings of sadness and staleness across diverse cultures.

**Black-and-white.** Despite extensive literature on color, little has been known about the influence of black-and-white on emotional responses (Detenber, Simons, & Reiss, 2000). An exception is desaturation theory, which states that in film and TV presentations, black-and-white (completely desaturated colors) can lead to a more profound emotional experience of the event portrayed (Zettl, 2013). Compared to saturated colors that make an internal event, such as an intimate love scene, external and diminish viewers’ emotions, black-and-white has the power to invite the audience to become emotionally involved (Zettl, 2013). According to desaturation theory, the use of black-and-white is more effective for scenes involving tragic events or death (Zettl, 2013).

Findings from Pastor and Manuel (2015) also suggest that in times of a tragic event, avoidance of color in advertisements might be more appropriate. Through a content analysis, the authors examined the message content and layout of 178 advertisements published in the Spanish press the days following the terror attack March 11, 2004, in Madrid. The focus was to find out the types of predominant messages in each ad and analyze the design of those messages in regard to text, image, color, graphics, and composition (Pastor & Manuel, 2015). The analysis found that most ads presented messages of condolence and avoided color and photographs, which, according to the authors, are the two elements of the greatest impact in design (Pastor & Manuel, 2015). More than 96 percent of the ads studied used only black, white, and gray. By expressing condolence and using somber designs without color, the advertisers empathized directly with the pain and grief of the victims (Pastor & Manuel, 2015).
Although previous studies (Zettl, 2013; Pastor & Manuel, 2015) provide useful insight into why organizations might want to consider limiting the use of color in certain circumstances, there has been no empirical evidence that explains the impact of using black-and-white in the wake of a crisis. This study argues that the use of a black-and-white logo can be interpreted as the organization’s effort to acknowledge an emotional event and console others. As a result, the public’s attitudes toward the organization will be influenced by the tone of color the organization uses in crisis response messages. Thus, the following hypothesis is proposed:

H3: A black-and-white logo in crisis response messages will lead to a more positive organizational reputation than an official logo in the original color.

No previous study to the author’s knowledge has found that the public exposed to sadness-present crisis response messages and a black-and-white logo evaluate the organization more positively than those exposed to the other conditions. Also, no empirical evidence suggests that people exposed to sadness-absent crisis response messages and an official logo in the original color evaluate the organization less positively than those exposed to the other conditions. Therefore, the following research question is proposed:

R1: Will there be an interaction effect between emotion expressed (presence of sadness vs. absence) and logo color (standard vs. black-and-white) on organizational reputation?

Behavioral Intention

Previous studies in marketing suggest that positive organizational reputations enhance behavioral intentions of customers. In other words, customers who evaluate highly of an organization are more likely to purchase products from that organization. Kang and Yang (2010) explored the effects of participants’ perceived overall reputation of South Korean corporations on their product attitudes and purchase intentions. Results indicate that those who viewed South
Korean corporations as having favorable reputations showed increased intentions to buy South Korean products (Kang & Yang, 2010). Similarly, Jung and Seock (2016) tested the impact of negative organizational reputation on consumers’ responses to brands. The researchers found that consumers’ intentions to buy American Apparel and attitudes toward the brand deteriorated after they read about the negative reputation story of the brand. In an effort to provide an explanation for the process of how organizational reputation influences behavioral intention, Keh and Xie (2009) found that organizations can have better reputations by building trust with customers, which, in turn, relates positively to customer purchase intentions. Another finding was that customer trust positively influences customer identification, which then leads to higher purchase intentions (Keh & Xie, 2009). As demonstrated in the previous research, there is a close association between organizational reputation and behavioral intention. Therefore, the present study proposes the following research question:

R2: How will emotion and logo color in crisis response messages influence participants’ behavioral intentions?
CHAPTER 3: METHODOLOGY

Experimental Design and Stimuli

This study employed a 2 (emotion: presence of sadness vs. absence) x 2 (logo color: standard vs. black-and-white) within-subject factorial experimental design. The experimental stimuli, created by the researcher, were 1) news articles introducing airline crises to participants and 2) public relations messages (i.e., Facebook posts), which included text and logos from existing airline companies, in response to their real-life crisis situations. Both news articles and PR messages were for four existing airlines, Air France, Malaysia Airlines, AirAsia, and Germanwings, which experienced a fatal plane incident in the late 2000s and 2010s that resulted in at least 150 casualties.

The first crisis situation involves Air France Flight 447, scheduled from Rio de Janeiro, Brazil, to Paris, France. The plane crashed into the Atlantic Ocean on June 1, 2009, after it entered an aerodynamic stall as a result of both technical and human error (Bruton, 2014). All 228 aboard were killed. The second crisis is about Malaysia Airlines Flight 370, which disappeared March 8, 2014, while flying from Malaysia to China. Despite the multinational search effort for the aircraft, only pieces of plane debris have been found on the African coast and islands in the Indian Ocean ("Missing Malaysia," 2017). The cause of this crisis is yet to be known, and there were 239 people on the plane. The third crisis involves AirAsia Flight 8501, bound for Singapore from Indonesia, which crashed into the Java Sea on Dec. 28, 2014. The plane ascended steeply at an abnormal speed before the crash, which resulted from malfunctioning of the plane’s rudder movement, followed by the pilots’ response without complete precision (Ap, 2015). All 162 people on board were killed. The last crisis situation is
the crash of Germanwings Flight 9525, bound for Germany from Spain, into the French Alps on March 24, 2015. The crash was caused deliberately by the co-pilot who had been treated for depression in the past (Moulson, 2016). All 150 people on board were killed.

The news articles introducing the crises were developed from previously published stories and were similar in their length and structure. Then, a total of four crisis response messages corresponding to each crisis/company were created based on the information from the news articles and statements written by the airline companies. They were in the form of Facebook posts with text and logos from the airlines, as well as their Facebook cover images, to ensure a proper manipulation of color. Lastly, they were manipulated into four conditions (2: emotion x 2: logo color), resulting in a total of 16 crisis response messages (2 x 2 x 4: number of companies) for the experiment.

**Independent Variables**

**Emotion.** Emotion was operationalized as presence of sadness words and messages and had two levels, a sadness-present message and a sadness-absent message. In addition to explaining the crisis situation, the sadness-present condition expressed the emotion by including sadness-related words, such as “saddened,” “devastated,” “mourning,” “sorrow,” and “condolence,” as well as setting the tone that is sympathetic, compassionate, and apologetic toward the people affected by the crisis. Further, the sadness condition communicated in a more subjective manner (e.g., “We” instead of “Air France” or “the company”). The sadness-absent message, on the other hand, was fact-based and focused on describing and confirming the crisis. The message was communicated in a more straightforward and objective manner (e.g., “Air France” or “the company” instead of “We”).

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**Logo color.** Logo color also had two levels, the airline’s standard logo color and toned-down color, which was black-and-white. The standard color was the same as each airline’s official color of the logo. The toned-down color was created by the researcher using Adobe Photoshop.

**Dependent Variables**

**Crisis evaluation.** Participants’ evaluation of each crisis incident was measured after reading a news article about it. Participants were asked to rate the crises on four items, a modified version of the scale adopted from a previous study (Becker-Olsen, 2003). The items included familiarity, recognition, whether they have heard of the incidents, and how much they perceive the incidents as tragic, ranging from 1 = “not at all familiar,” “definitely not recognize,” “definitely have not heard of it before,” and “definitely not tragic” to 7 = “extremely familiar,” “definitely recognize,” “definitely have heard of it before,” and “definitely tragic.” The first three items were created into a new measure of crisis recognition and the last item into perceived tragedy. Cronbach’s alpha for each crisis recognition was $\alpha = .792$ for the Air France article, $\alpha = .868$ for the Malaysia Airlines article, $\alpha = .859$ for the AirAsia article, and $\alpha = .769$ for the Germanwings article, respectively.

**Self-reported sadness.** This was measured by asking participants how much of the following emotions they felt after reading the articles and the messages: sad, downhearted, and unhappy, ranging from not at all (1) to very much (7), which was adopted from a previous study (Fredrickson, Tugade, Waugh, & Larkin, 2003). Participants’ emotion was measured after they read the news articles and also after they viewed the public relations messages. Cronbach’s alpha for sadness after articles questions was $\alpha = .967$ for the Air France article, $\alpha = .975$ for the Malaysia Airlines article, $\alpha = .964$ for the AirAsia article, and $\alpha = .973$ for the Germanwings
article. Cronbach’s alpha for sadness after messages questions was $\alpha = .959$ for messages with no emotion and black-and-white, $\alpha = .961$ for messages with no emotion and color, $\alpha = .968$ for messages with emotion and black-and-white, and $\alpha = .938$ for messages with emotion and color.

**Message appropriateness.** Participants’ evaluation of each public relations response message they viewed was measured by five items adopted and modified from three pre-existing message appropriateness measures (Hullman, 1998; Johnson, 2007; Johnson, 2008). The items were “The response message was appropriate,” “The response message was proper,” “The response message was socially acceptable,” “The response message was correct,” and “The response message was polite” and ranged from 1 indicating *strongly disagree* to 5 indicating *strongly agree*. Cronbach’s alpha for message appropriateness questions was $\alpha = .939$ for messages with no emotion and black-and-white, $\alpha = .939$ for messages with no emotion and color, $\alpha = .934$ for messages with emotion and black-and-white, and $\alpha = .927$ for messages with emotion and color.

**Organizational reputation.** Participants’ evaluation of each airline after being exposed to the public relations response messages was measured by five items (Coombs & Holladay, 2002). The items were “The organization is concerned with the well-being of its public,” “The organization is basically dishonest,” “I do not trust the organization to tell the truth about the incident,” “Under most circumstances, I would be likely to believe what the organization says,” and “The organization is not concerned with the well-being of its public,” with *strongly disagree* (1) to *strongly agree* (5). Cronbach’s alpha for organizational reputation questions was $\alpha = .829$ for messages with no emotion and black-and-white, $\alpha = .790$ for messages with no emotion and color, $\alpha = .869$ for messages with emotion and black-and-white, and $\alpha = .814$ for messages with emotion and color.
Behavioral intention. Participants’ future behavioral intentions regarding the airlines were measured by using a modified version of the scale adopted by Lyon and Cameron (2004). Participants were asked to estimate the likelihood of each of the eight items: “I would fly this airline if I have the opportunity in the future,” “I would invest in this airline if I have the opportunity in the future,” “I would recommend a friend to fly this airline if I have the opportunity in the future,” “I would recommend a family member to fly this airline if I have the opportunity in the future,” “I would recommend a colleague to fly this airline if I have the opportunity in the future,” “I would like this airline’s Facebook page if I have the opportunity in the future,” “I would follow this airline’s Twitter if I have the opportunity in the future,” and “I would engage in conversations with this airline on social media if I have the opportunity in the future,” ranging on a 7-point Likert scale from very unlikely (1) to very likely (7). Cronbach’s alpha for behavioral intention questions was $\alpha = .948$ for messages with no emotion and black-and-white, $\alpha = .956$ for messages with no emotion and color, $\alpha = .957$ for messages with emotion and black-and-white, and $\alpha = .962$ for messages with emotion and color.

Participants and Procedure

A total of 188 people participated in the experiment. Recruited participants were from undergraduate and graduate courses at a large Midwestern university. Participants were offered extra credit in their classes in exchange of their voluntary participation, and an alternative assignment was provided for the same number of extra credit points to those who did not or could not participate. As with all research projects involving human subjects, an approval from the Institutional Review Board (IRB) was obtained prior to the experiment, and each participant was given the opportunity to review and provide consent upon the start of their experiment sessions. The sample included 78.2 % of female (N=147) and 21.8 % of male (N=41).
standing for the sample was reported as 20.2 % freshmen, 21.8 % sophomores, 19.7 % juniors, 36.2 % seniors, and 2.1 % graduate students. 87.2 % of the sample was 21 years old or younger, with 12.8 % of the sample identifying as 18 years old. 12.8 % of the sample identified as older than 22 years old.

An online experiment was conducted through Qualtrics. Before exposure to the stimuli, participants’ prior knowledge of and prior attitudes toward each airline company were measured. Each participant was randomly assigned to a set of four stimulus messages, each of which was a different condition involving a different company (crisis). Once the study began, participants read a news article about the assigned crisis situation to get familiar with what happened during the crisis and answered a couple of questions measuring their evaluation of the crisis and a level of sadness while reading the article. After each news article, participants viewed one of the four assigned public relations response messages in the form of a Facebook post and answered a series of questions that measured a level of their sadness while viewing the message, perceived message appropriateness, organizational reputation, and behavioral intention. Demographic information, including age, gender, and class standing, was collected at the end of the survey. It took approximately 20-25 minutes to complete the experiment.

Analysis

IBM SPSS 22 was used for data analysis. Partial or incomplete questionnaires were deleted as a way to clean up the raw data. A 2 (emotion: presence of sadness vs. absence) x 2 (logo color: standard vs. black-and-white) repeated measures ANOVA was used to analyze all hypotheses and research questions.
CHAPTER 4: RESULTS

Manipulation Check: Participants’ Response to the Crises

To ensure all four crisis incidents were similar in how they were recognized and perceived and thus, no significant difference existed among the crises, participants were asked to evaluate each crisis after reading an article about it. A repeated measures ANOVA was conducted to test how participants recognized and perceived the four crises, as well as how they felt after learning about the crises (measured in crisis recognition, perceived tragedy, and self-reported sadness after articles). Further, tests were run with message presentation order as a between-subject factor to see if the presentation order was a significant factor on any outcome.

Crisis Recognition. There was a significant main effect for crisis recognition ($F(3,552) = 111.92, p<.001, h^2 = .38, power = 1.00$) with the mean score for Malaysia Airlines’ missing plane (M = 5.06, SD = 2.01) being higher than the mean scores for Air France’s crash (M = 2.55, SD = 1.57), AirAsia’s missing plane (M = 2.96, SD = 1.78), and Germanwings’ crash (M = 2.71, SD = 1.66).

Perceived Tragedy. The main effect for perceived tragedy was not significant ($F(3,552) < 1$). As shown in the mean scores, all four airline crises were rated almost equally tragic with the mean scores for Air France’s crash (M = 6.33, SD = 1.33), Malaysia Airlines’ missing plane (M = 6.40, SD = 1.28), AirAsia’s missing plane (M = 6.30, SD = 1.13), and Germanwings’ crash (M = 6.45, SD = 1.26).

Self-reported sadness after articles. The main effect for self-reported sadness after articles was not significant ($F(3,552) = 1.71, p>.1$). All four airline crises induced a similar
level of sadness with the mean scores for Air France’s crash (M = 5.55, SD = 1.40), Malaysia Airlines’ missing plane (M = 5.65, SD = 1.43), AirAsia’s missing plane (M = 5.55, SD = 1.40), and Germanwings’ crash (M = 5.73, SD = 1.43).

**Message presentation order.** The main effect for message presentation order in crisis recognition was not significant ($F(3,184) < 1$). Neither was it significant in perceived tragedy ($F(3,184) = 2.31, p > .05$) nor in self-reported sadness after articles ($F(3,184) < 1$).

**Hypotheses and Research Questions: Participants’ Response to the Response Messages**

The presentation order effect was not significant, and therefore, the results reported are based on the analyses from a 2 (emotion: presence of sadness vs. absence) x 2 (logo color: standard vs. black-and-white) within-subject repeated ANOVA.

**Hypothesis 1**

Hypothesis 1 predicted that sadness-present crisis response messages would lead to a greater level of sadness in participants than sadness-absent crisis response messages. The main effect for emotion after the PR crisis response messages was significant ($F(1,187) = 9.50, p < .01, h^2 = .05$, power = .86). In line with the prediction, sadness-present messages (M = 5.53, SD = .10) led to greater emotion compared to sadness-absent messages (M = 5.27, SD = .10). Thus, Hypothesis 1 was supported. Further, this study predicted that people who feel sad from viewing the sadness-present crisis response messages would naturally rate them as more appropriate because these messages resonate with their emotion. There was a significant main effect for message appropriateness ($F(1,187) = 93.21, p < .001, h^2 = .34$, power = 1.00), showing that sadness-present crisis response messages were rated higher on message appropriateness than sadness-absent crisis response messages.

**Hypothesis 2**
Hypothesis 2 predicted that sadness-present crisis response messages would result in a more positive organizational reputation than sadness-absent crisis response messages. The main effect for emotion was significant ($F(1,187) = 53.47, p<.001, h^2 = .22, power = 1.00$) with the mean score for sadness-present messages ($M = 4.32, SD = .06$) being higher than the mean score for sadness-absent messages ($M = 3.90, SD = .07$), which was in line with the prediction. Thus, Hypothesis 2 was supported.

**Hypothesis 3**

Hypothesis 3 predicted that a black-and-white logo in crisis response messages would lead to a more positive organizational reputation than an official logo in the original color. In line with the prediction, the mean score for organizational reputation was slightly higher for a black-and-white logo ($M = 4.13, SD = .07$) than an official logo ($M = 4.08, SD = .06$). However, the main effect for logo color was not significant ($F(1,187) < 1$). Thus, Hypothesis 3 was not supported.

**Research Question 1**

Research Question 1 asked whether there would be an interaction effect between emotion (presence of sadness vs. absence) and logo color (standard vs. black-and-white) on organizational reputation. No significant interaction effect was found ($F(1,187) < 1$). However, for sadness-present messages, organizational reputation was slightly higher in the case of employing a black-and-white logo ($M = 4.37, SD = .08$) as compared to a standard logo ($M = 4.27, SD = .07$). In the case of sadness-absent messages, no difference in organizational reputation occurred whether the logo was black-and-white ($M= 3.88, SD = .08$) or in the standard color ($M = 3.88, SD = .08$).

**Research Question 2**
Research Question 2 asked how emotion and logo color in crisis response messages would influence participants’ behavioral intentions. The main effect for emotion was significant ($F(1,187) = 30.74, p<.001, h^2 = .14$, power = 1.00) with the mean score for sadness-present messages ($M = 2.58, SD = .09$) being higher than the mean score for sadness-absent messages ($M = 2.20, SD = .08$). The main effect for logo color was not significant ($F(1,187) < 1$) with the mean score for a black-and-white logo ($M = 2.37, SD = .08$) being slightly lower than the mean score for a standard logo ($M = 2.40, SD = .09$). There was no significant interaction effect between emotion and logo color on behavioral intention ($F(1,187) < 1$) with the mean score for sadness-present messages with a standard logo ($M = 2.59, SD = .10$) being higher than the mean scores for sadness-present messages with a black-and-white logo ($M = 2.57, SD = .10$), sadness-absent messages with a standard logo ($M = 2.21, SD = .09$), and sadness-absent messages with a black-and-white logo ($M = 2.18, SD = .09$).

Table 1. Summary of Main Effects and Interaction for 2 (Emotion) x 2 (Logo color)

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported sadness after messages</td>
<td><strong>Emotion</strong></td>
<td>1</td>
<td>9.50</td>
<td>.002</td>
<td>.05</td>
</tr>
<tr>
<td>Message appropriateness</td>
<td><strong>Emotion</strong></td>
<td>1</td>
<td>93.21</td>
<td>.000</td>
<td>.34</td>
</tr>
<tr>
<td>Organizational reputation</td>
<td><strong>Emotion</strong></td>
<td>1</td>
<td>53.47</td>
<td>.000</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Logo color</td>
<td>1</td>
<td>.68</td>
<td>.411</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Emotion x Logo color</td>
<td>1</td>
<td>.54</td>
<td>.462</td>
<td>.00</td>
</tr>
<tr>
<td>Behavioral intention</td>
<td><strong>Emotion</strong></td>
<td>1</td>
<td>30.74</td>
<td>.000</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Logo color</td>
<td>1</td>
<td>.24</td>
<td>.628</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Emotion x Logo color</td>
<td>1</td>
<td>.001</td>
<td>.969</td>
<td>.00</td>
</tr>
</tbody>
</table>
CHAPTER 5: DISCUSSION AND CONCLUSION

The overarching goal of this study was to examine how the use of emotion and color in crisis response messages affects the audience’s response to organizational reputation. Previous studies in crisis communication focused more extensively on the role of emotions experienced by the public rather than those expressed by organizations, and overall, there has been a dearth of crisis communication research about the effects of color. This study investigated whether expressing sadness and employing a black-and-white logo can minimize crisis damage and result in a more positive organizational reputation.

In line with the prediction (Hypothesis 1), this study found that sadness induced in textual messages does indeed get transferred and is felt by the readers. When the public are presented with a crisis response message written with the company’s sad expressions and tone, the result of this study suggests that the public themselves will feel the same emotion through the process of emotional contagion. Similar to the recent empirical studies (Hancock, Gee, Ciaccio, & Lin, 2008; Cheshin, Rafaeli, and Bos, 2011; Kramer, Guillory, & Hancock, 2013; Coviello et al., 2014), this study provided empirical evidence that emotional contagion can take place in the text-based electronic communication context without nonverbal cues, such as face-to-face interactions.

Although it is not entirely impossible that the sadness reported after exposure to the sadness-present crisis response messages was a carryover from the tragic crisis incidents, the fact that there was no significant effect for self-reported sadness after exposure to the articles refutes that possibility. In addition, the finding with a significant main effect for emotion that the sadness-present messages were deemed more appropriate than the sadness-absent
messages suggests that sadness was transferred from the sadness-present messages, not the articles. It can be inferred that the sad messages were evaluated more appropriate because they resonated well with those who felt sad from reading the sadness-present messages.

Further, as predicted by Hypothesis 2, sadness-present crisis response messages lead to a more positive organization reputation than messages without sadness. This result, which showed a highly significant main effect, indicates that organizations can reduce criticism from the public and protect their reputations by communicating their sad emotion through their PR response messages in times of crisis. The finding also supports previous arguments and evidence (Han, Lerner, & Keltner, 2007; Kim & Cameron, 2011) based on appraisal tendencies that when experiencing an organizational crisis, sad people tend to attribute blame to situational factors, not the organization. Reading the sadness-present response messages, participants of this study were induced to feel sad, and this particular discrete emotion triggered them to evaluate the airlines more favorably. Overall, results from Hypothesis 2 shed light on the useful role of expressed emotions that organizations can fully leverage and apply to their crisis communication tactics.

As opposed to the prediction (Hypothesis 3), the use of a black-and-white logo in crisis response messages does not lead to a more positive organizational reputation compared to the use of an official logo in the standard color. This study argued that a black-and-white logo might work to an advantage in that it can be interpreted as the organization’s effort to console others in the wake of an emotional event. However, the finding indicates no significant effect of employing a toned-down logo in crisis response messages on the organization’s reputation. One possible explanation of this result is that the color alteration did not stand out as much because black-and-white is something people commonly see in
news content and are exposed to in their daily life. It is likely that participants focused more heavily on reading the crisis response messages than observing the color difference. Still, the fact that the mean score for a black-and-white logo was slightly higher than the mean score for an official logo suggests that altering logo color does have some meaning and can be developed as a possible strategy. There is definitely room for further research on the effects of color in crisis communication.

The first research question asking whether there was an interaction effect between emotion and logo color on organizational reputation found no significant effect. However, as mentioned previously, the use of a black-and-white logo in the context of a sadness-expressed response message can result in less reputational damage from a crisis than the use of an official logo. This finding cannot be served as a definite guide for organizations in the midst of a crisis but can still provide direction that helps with their crisis communication plans and strategies.

The second research question asking whether emotion and logo color in crisis response messages would influence behavioral intentions found a significant effect for emotion but not for logo color. This means organizations can benefit from sharing their sad emotion with the public in times of crisis compared to communicating with no emotion. However, regardless of the emotion condition (presence of sadness vs. absence), the likelihood of behavioral intention in connection to the airline companies was in the low range.

Interestingly, this study found a significant main effect for emotion in all pertinent hypotheses and one of the research questions, but none of the effects for logo color was significant. This finding might imply that logo color and how it changes are not an as
important piece of a social media post as the actual message being communicated and that people can be somewhat indifferent to color alteration, especially when they are not familiar with or aware of the original color that is being altered. Overall, the results of this study suggest that organizations should express their emotion through appropriate words and phrases, specifically sadness, when they send out PR messages in response to a crisis. By doing so, their audience will also feel sad and evaluate them more positively. In addition, organizations can consider employing a toned-down version of their logo, along with emotional messages, when responding to a crisis.

**Limitation and Future Study Suggestions**

A couple of limitations to this study can offer suggestions for further research in crisis communication. One limitation lies in the experimental stimuli for two reasons. First, this study used highly emotional real-life airline crises that resulted in at least 150 casualties. Further research should replicate this study using a less emotionally involving and less severe crisis situation, such as a fraud or product recall case, to explore how the audience responds to sadness-present vs. sadness-absent messages. Second, the crisis response messages in the form of Facebook posts were not completely realistic because they were shown as if they appeared in the airlines’ Facebook pages, which included cover images, in addition to small square logos, to ensure a proper color manipulation. In real life, however, Facebook posts are generally viewed in one’s News Feed, which shows only a company logo and a message. Future research can consider manipulating color in a different way or choosing a different crisis communication platform, such as a company website, that usually features more images than just a logo, which can be manipulated and tested to examine the effects of color vs. black-and-white.
Another limitation of this study is the participant sample. By using a sample of college students, 87.2 percent of whom were between 18-21 years of age and 78.2 percent female, the scope of this study can only extend to that demographic. Future research might want to consider collecting a sample of the general public (nonstudents) who have a different level of knowledge about and experience with airline companies.

Finally, researchers should consider replicating this study using different negative discrete emotions besides sadness and explore whether emotional contagion occurs and how the emotionally induced audience evaluates organizations in the wake of a crisis. Moreover, researchers can consider using companies that are widely known among participants as it is more likely that they will already recognize the companies’ official logos and respond more sharply to color alteration.

Conclusion

The results of this study strongly suggest that organizations can protect their reputation by expressing and communicating sadness in times of crisis. When organizations share their feeling of sadness in their crisis response messages, this discrete emotion is transferred to the public through the process of emotional contagion, and as a result, the sadness-evoked public evaluate those organizations more favorably. Moreover, crisis response messages that express sadness lead to higher behavioral intentions than messages without the emotion. In the case of logo color, this study found no significant impact of employing a black-and-white logo on organizational reputation or behavioral intention. This result might be due to one of the limitations of this study that people are already familiar with black-and-white in general and do not pay their closest attention to alteration of logo color. There is room for further research to investigate whether organizations can benefit from
toning down their logo color when responding to a crisis situation. Overall, this study serves as a useful guide to public relations professionals who develop and execute crisis communication strategies.
REFERENCES


at the annual meeting of the International Communication Association, Montreal, Canada

APPENDIX A
MEASUREMENT AND SCALES

The next set of questions is about the news article you’ve just read. Please read each question carefully and provide your answer accordingly.

Crisis evaluation (recognition and perceived tragedy)

Please rate the crisis incident discussed in the news article.

Not at all familiar 1 2 3 4 5 6 7 Extremely familiar
Definitely recognize 1 2 3 4 5 6 7 Definitely not recognize (*Recode)
Definitely have not heard of it before 1 2 3 4 5 6 7 Definitely have heard of it before
Definitely not tragic 1 2 3 4 5 6 7 Definitely tragic

Self-reported sadness after articles

Please read each statement below and indicate how you felt while reading the news article.

1. I felt sad.
   1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

2. I felt downhearted.
   1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

3. I felt unhappy.
   1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

The next set of questions is about the response message you’ve just viewed. Please read each question carefully and provide your answer accordingly.

Self-reported sadness after messages

Please read each statement below and indicate how you felt while viewing the response message.

1. I felt sad.
   1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

2. I felt downhearted.
   1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

3. I felt unhappy.
1 (Not At All) 2 3 4 (Neutral) 5 6 7 (Very much)

**Message appropriateness**

The question below asks you to evaluate the crisis response message you’ve just viewed. Please read each statement carefully and choose the option that best represents your view.

1. The response message was appropriate.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

2. The response message was proper.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

3. The response message was socially acceptable.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

4. The response message was correct.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

5. The response message was polite.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

**Organizational reputation**

The question below asks you to evaluate the airline based on the crisis response message you’ve just viewed. Please read each statement carefully and choose the option that best represents your view.

1. The company is concerned with the well-being of its public.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

2. The company is basically dishonest. (*Recode)
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

3. I do not trust the company to tell the truth about the incident (crisis). (*Recode)
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

4. Under most circumstances, I would be likely to believe what the company says.
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

5. The company is not concerned with the well-being of its public. (*Recode)
   1 (Strongly Disagree) 2 3 (Neither) 4 5 (Strongly Agree)

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Behavioral intention

The question below asks about your future behavioral intentions regarding the airline. Please choose the option that best represents the likelihood of your behavior.

1. I would fly this airline if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

2. I would invest in this airline if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

3. I would recommend a friend to fly this airline if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

4. I would recommend a family member to fly this airline if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

5. I would recommend a colleague to fly this airline if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

6. I would like this airline’s Facebook page if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

7. I would follow this airline’s Twitter if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)

8. I would engage in conversations with this airline on social media if I have the opportunity in the future.
   1 (Very Unlikely) 2 3 4 (Neither) 5 6 7 (Very Likely)