

# **Exploring the effect of a message source and corporate response strategy on publics' behaviour intentions and perceived corporate reputation**

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### **ABSTRACT**

*This study aimed to explore whether a message source (CEO or employee) and corporate response strategy (deny, diminish, apology) had an effect on public's behaviour intentions and perceived corporate reputation after a corporate paracrisis. The reason for focusing specifically on the paracrisis is its relevance for contemporary crisis management that springs from the increasingly powerful role of social media and evoking an issue to a crisis. In this study it was discussed whether Attribution theory, Image repair theory or SCCT would be the best theory to follow in order to solve a paracrisis. SCCT was seen to be the most applicable theory. As little to no research was done on the topic, the results would provide good insight in whether selected SCCT response strategies apply to the paracrisis. Moreover, existing literature do not agree on who should be perceived as the most credible message source in times of a crisis; the CEO or the employee. To find out whether SCCT is applicable to the paracrisis, and who is perceived as the most credible message source, the following research question was posed: "How do a message source and response strategy affect post-crisis reputation and the publics' behaviour intention among the public of a preventable crisis?" Based on this research question, four hypotheses were established. In order to answer the research question, an online experiment was conducted in 'Qualtrics' using a 2 x 3 factorial between-subject design for a total of six conditions. Each condition included a combination of one message source and one response strategy. The data for this study were collected via online tool MTurk whilst adopting a simple random sampling method. A total of 438 people participated in the experiment. However, after filtering out 144 participants, the final sample was compiled of 294 participants. Participants were randomly assigned to one out of six different conditions. Each condition presented several stimuli; a biography of George Allington who was described as either the CEO or employee of PlasTech Innovations, a corporate description, and a fictitious news article in which allegations were made towards PlasTech Innovations. Lastly, participants viewed a corporate crisis response conform to the condition. After all responses were collected, several statistical tests were conducted in SPSS to test the relationship between the fixed factors and the test variables. The findings showed insignificant relationships between the fixed factors response strategy and message source, and the independent variables 'Post-crisis reputation' and 'Behaviour intentions'. Consequently, all four hypotheses were rejected. All in all, this indicates that both the message source as well as the response strategy do not significantly influence the post-crisis reputation perceptions and behaviour intentions in the sample. The rules of SCCT are seen to be inapplicable to the distinctive paracrisis. Therefore, in order to be able to respond to a paracrisis properly, a new theory should be established which takes into account the characteristics of the paracrisis.*

**KEYWORDS:** Paracrisis, response strategy, message source, behaviour intention, post-crisis reputation

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## Preface

*I want to thank my family, my dear friends, my boyfriend Casper and most of all dr. Yijing Wang for pulling me through at times I wanted to give up. I could not have made it without your support, you all have a special place in my heart.*

*“What would you think if I sang out of tune  
Would you stand up and walk out on me?  
Lend me your ears and I'll sing you a song  
And I'll try not to sing out of key  
Oh I get by with a little help from my friends  
Mm I get high with a little help from my friends  
Mm gonna try with a little help from my friends”*

*- The Beatles, With a little help from my friends*

## 1. Introduction

### 1.1 The scandal and communication strategies

In 2013 the Los Angeles Times published an article that shocked the world. The article targeted well known bank Wells Fargo. In the article they accused them of opening up 1.5 million unauthorized banking accounts as well as registering over 500.000 unwanted credit cards (Cowley, 2016). These banking accounts and credit cards were registered without clients being aware. The published article created a wave of public as well as media comments that were least to say favourable. What caused this crisis is that the working conditions for Wells Fargo employees were so tense and stressful that employees felt pushed into this 'solution'. After Wells Fargo fired these employees, many of the former employees sought publicity in posting their personal stories of Wells managers forcing employees to lie to customers on social media (Cowley, 2016). As can be expected this caused an even larger wave of critique. The crisis for Wells Fargo has impact on their revenues and shares up till today as their value keeps on declining by two per cent each year (Egan, 2017). This story represents how firms go from a paracrisis to a full blown crisis by not using the right response strategy and approach to the crisis.

The scandal of Wells Fargo is the ultimate example of a typical corporate crisis. As Coombs (2015, p. 3) states, an organizational crisis is "The perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization's performance and generate negative outcome". To project this to the Wells Fargo case, the stakeholders point to the customers. These customers expected to be treated ethically as Wells Fargo would provide professional advice. The customers had never expected to be deceived in a way that a well-known bank would lie about their work practices. Since the expectancies of the stakeholders were not met, it generated negative outcome in people protesting and boycotting the bank. This occurrence is called an issue (Coombs, 2015). As Coombs states, issues can lead, in this case, to the bank being in an organizational crisis.

However, not only customers as stakeholders are influenced by an organizational crisis. Most of all people tend to forget that an organizational crisis directly influences its employees. These employees often suffer most from the crisis due to them depending on the well-being of the company they work for (Milburn, Schuler & Watman, 1983). Crises occur on all levels of society, international as well as nationally, in families as well as within organizations (Milburn, Schuler & Watman, 1983). One main factor determining the occurrence of a crisis is perception. The perception of the stakeholders involved decides

whether an issue may evolve and become a crisis (Coombs, 2015). Therefore, the stakeholder can not only be influenced by a crisis, they also influence the crisis themselves by giving meaning to it.

As a crisis is very unpredictable, and always on the verge of happening, a company should be prepared to anticipate on it beforehand (Coombs, 2015). Response strategies have to be clear. Also, the crisis manager and the spokesperson should be aware of their important role to play (Coombs, 2007a). The response to a crisis is not only what the organization says, but also how it behaves during the crisis strikes. According to Coombs (2007a) every response has to meet the following three requirements; It should be quick, accurate and most importantly, consistent. Moreover, the official spokesperson of the organization should always be present in guiding and stating the response. The absence of comments outed by such a leading official would have negative impact on stakeholder perceptions which would harm the organization even more (Holladay, 2009). Having a response strategy in place along with a clear management is therefore evident to mitigate the damage caused by a crisis.

## **1.2 Research problem**

Drawing on the crisis of Wells Fargo, two important sources for communicating a crisis can be identified: The CEO of a company on one side, and the employees on the other side. In the Wells Fargo case, customers perceived the employees to be a more trustworthy source than the CEO – John Stumpf (Egan, 2017). Previous studies hardly provided an explanation to such a difference. Scholars mainly touched upon a comparison of the CEO of an organization and an independent worker in the crisis context. The source credibility with regard to the CEO and employee is however hardly studied (Roh, 2017). As Pornpitakpan (2004) states, people who are seen as more credible are more likely to influence and persuade the behaviour of the public. Moreover, the brand attitude one has will also be positively influenced. Therefore, knowing who is seen as being the most credible message source is valuable information. According to Helm (2011), employees are the means to achieve a high level of corporate reputation.

In a time where the use of social media is part of our daily routines, employees that advocate corporate messages are seen as increasingly important as they provide a unique source of information to the public. Moreover, Edelman's trust barometer (2018) found that 71% of a sample of the world population perceived the employee to be more believable than the CEO who scored a meager 29%.

What diverges this study from previous ones is that the comparison between CEO and

the employee is made internally in a company. When comparing the CEO to an independent worker, a comparison is made between two external bodies. Moreover, with the emerging of social media, employees have become an important information source for customers (van Zoonen, van der Meer & Verhoeven, 2014). As Coombs and Holladay (2012) state, crises, and mainly paracrisis, often lead to reputational damage. However, what is also not covered in previous studies yet is the effect of the message source, thus the impact of the CEO versus employee as a source of communication, on the post-crisis reputation and the behaviour intentions among the public. Thus, this study aims to tackle this problem and provide empirical evidence with respect to the credibility of CEO and employees as a communication source in crisis management.

Another reason why exploring the effect of using the CEO as message source during a crisis presented the following. When looking further in the Edelman barometer results (2018) we can see a trend in which the CEO is seen to gain in credibility whereas the employee lost in credibility compared to Edelman's 2017 barometer. Another interesting result presented in Edelman (2018) is that 56% of the people who participated in the study outed to have no respect for CEO's who remain silent on important issues. This would mean that the lack of a corporate CEO voice during a crisis leads to a less positive attitude towards the CEO and thus the company. As both the CEO and the employee prove to be important factors within the crisis solving process, it is evident to focus on these two persona's.

Another factor that needs to be taken into account is the response strategy (Roh, 2017; Coombs, 2007c). According to Claeys and Caubergh (2012), it is evident for an organization to integrate reputation restoring crisis response strategies into its communication strategy. This is done in order to minimize the reputational damage threat. Such a restoring response strategy would be denial, apology or other responses, mainly named in Situational Crisis Communication Theory of Coombs. As Coombs and Holladay (1996) explain, the response strategy that is inhabited in the communication strategy can influence how stakeholders interpret and perceive the organization and the crisis. Moreover, the more responsible the company is perceived by the stakeholders, the more emotions will be involved in the judgement of stakeholders (Coombs, 2007a). A judgement of responsibility is therefore a Damocles sword for the organization as it will suffer the judgement of the stakeholders.

What matters most in attributing responsibility is whether stakeholders assess the crisis as a controllable event or not. Depending on whether the crisis was preventable and controllable or not, the judgement will be passed. Coombs (2007a; 2007b; 2007c) distinguishes between three different crisis types; the victim cluster, accidental cluster and the preventable

cluster. In this study, the last cluster will be inhabited in the experiment. This was done as the preventable cluster is seen as having the most severe consequences for the company's reputation. Therefore, a crisis that falls in the spectrum of this cluster will trigger the strongest stakeholder reactions and emotions. As such a preventable crisis calls for a suitable response strategy, three SCCT responses were selected for the experiment of this study; deny, diminish and apology.

Coombs (2011) describes these three response strategies as ranging from defensive to putting victim concerns first. "The greater the crisis responsibility generated by the crisis the more accommodative the crisis response strategies must be" (Coombs & Holladay, p. 171, 2011). Coombs defines each of the three responses used in the experiment as highly relevant and diverging much from each other. Each of the three strategies matches best with a certain type of crisis. For crisis with strong attributions, an apology strategy might work best, whereas rumours would best be taken care of by adopting a denial response (Coombs & Holladay, 2011). Moreover, in the study of Roh (2017) that likewise adopted a preventable crisis for its experiment, the effect of a deny and diminish response strategy on the behaviour intention of customers was studied. The results proved adopting a deny strategy to have a lowering effect on blame attributions, like SCCT also predicted. Furthermore, participants were more inclined to produce positive word-of-mouth (Roh, 2017). However, in this study the experiment will cover a different kind of preventable crisis, namely one in which harm is inflicted on people. Moreover, the crisis is mainly visible on an online news website as well as on social media. This specific combination has not previously been subject to study. Therefore, to examine whether previous presumptions are applicable to the conditions of this online visible preventable crisis, these response strategies were tested in an online experiment.

This study tried to expand existing knowledge about the influence of response strategy on post-crisis reputation and behavior intention among the public. The role of source credibility (employee vs. CEO) and the response strategy (diminish, denial and apology) will be examined in this study. They will be studied in an experiment setting with the focus on a preventable crisis: The paracrisis. As few studies have tried to define the relation between paracrisises and crisis response strategies, inhabiting such a crisis in this study would provide new and useful information (Coombs & Holladay, 2009). To fill up the gap that still exists in crisis communication and corporate reputation literature, the following research question was formulated:

*RQ: How do a message source and response strategy affect post-crisis reputation and the publics' behaviour intention among the public of a preventable crisis?*

### **1.3 Scientific and social relevance**

An important incentive for this study is its scientific relevance. This study contributes to the literature of crisis communication in a way that it identifies the role of different communication sources and response strategies in a paracrisis. The reason for focusing specifically on the paracrisis is its relevance for contemporary crisis management that springs from the increasingly powerful role of social media and evoking an issue to a crisis. Moreover, it is evident to know the effect of the three previously distinguished response strategies as they were described as highly important by Coombs (2006). Each response strategy is attributed to a different type of crisis, but with the increasingly powerful role of social media, the effect of these response strategies might change.

Lastly, the CEO is seen to gain in trustworthiness amongst the public compared to the past year, whereas employees stagnate in the Eurobarometer (Edelman, 2018). This could mean that the belief of putting out employees as corporate advocates would have a lesser effect than letting the CEO execute this message source role. However, employees are perceived as more believable by an exaggerate amount of 71% of the public (Edelman, 2018). For companies it would therefore be valuable knowledge to know who is perceived as being more credible, believable and trustworthy. Moreover, this study incorporated an internal comparison between two message sources; the CEO and the employee. Previous research mainly focused on exploring the difference between a CEO and an external body. Therefore, knowing who is perceived as the most trustworthy and credible message source of a company internally, is evident and highly beneficial.

However, this study is not only relevant for scientific purposes, as it aimed to find out whether the CEO or the employee is seen as the most credible message source. Furthermore, this study sought to find out what response strategy provides most favourable behavior intentions amongst the public. This means that the results of this study could be used as a guideline for companies to structure their crisis communication plan. Moreover, results could be implemented in order to improve corporate stakeholder management. By gaining knowledge about preferred message sources and response strategies, responses can be customized to each stakeholder group.

## 2. Theoretical framework

### 2.1 Attribution theory

Attribution theory rooted in the academic field of psychology and was further developed by Harold Kelley and Bernard Weiner (1972). In Attribution theory, causal relationships are explored between the action of a person and the result of his or her action. The process of attribution will mainly occur when the outcome of an event was unexpected or provided a negative outcome (Coombs, 2007a). According to Weiner (1986), the result of a personal action depends on factors within the person himself as well as his environment. This structure of causality is defined by an internal-external locus, better known as the locus of control (Claeys, Cauberghe & Vyncke, 2010). Later on, a second and third dimension were added to the theory of causality. For the second dimension, a division between fluctuant and stable causes was made. When looking into the preventable crisis of Wells Fargo it can be argued that the cause of the crisis was fluctuant of nature. Here, the cause of the problem is seen as fluctuant since people's behaviour is changeable. This means that the actions of the employees led to the company being in crisis. The third division of Attribution theory relates to the stability dimension of a cause. The stability dimension sets out that certain crises cannot be attributed to internal causes. This is the case with natural disasters. Here, the crisis can only be attributed to an external cause instead of internal mismanagement (Weiner, 1986).

As people constantly attribute meaning to certain causes, it is indisputable that Attribution theory can be brought into relation with corporate crises. "Stakeholders will make attributions about the cause of a crisis; they will assess crisis responsibility" (Coombs, 2006, p.136). Again, it all depends on how the public gives meaning to the crisis. When the cause of the crisis is perceived as being preventable, stakeholders will assess the company as being fully responsible and behave accordingly. For instance, when the power of a city is down due to bad weather conditions, the power company will face little blame attributions. This, as the company cannot be held responsible for causing the crisis. The factor that caused the crisis is situational and out of the company's hands, which means that the responsibility cannot be attributed to the company (Coombs, 2006). McDonald and Härtel (2000) explain that when a crisis event affects people personally, the emotions victims experience will be increasingly intense. The level of involvement determines not only the internal processing of crises, it substantially influences how the company's crisis response is being perceived and interpreted (McDonald & Härtel, 2000). When a company is held responsible for the crisis, people will attribute blame to them. This increasingly influences stakeholder behaviour and corporate reputation perceptions in a negative way. Negative perceptions of the company might even

lead to stakeholders opting out or producing negative word-of-mouth (Coombs, 2007a). Therefore, it is evident to determine what corporate response generates the most positive impact on the corporate reputation and act accordingly.

## **2.2 Image repair theory**

A concept closely related to Attribution theory is Image repair theory. Image repair theory can be used as a guideline in repairing the reputation of a company in crisis. It perceives the image of a company “in the eye of the beholder” (Benoit, 1997; Benoit, 2000). Benoit (1997) emphasizes that in Image repair theory, the crisis response of a company should rely on two components. The first component clarifies that a company should assess their responsibility for the action that spurred the crisis. The second component describes that the public has to perceive the company’s action as offensive. Based on relatively the same premises as Weiner’s (1972) application of attribution theory to the crisis solving process, Image restoration theory also distinguishes between what conditions make up a crisis. Here, a trend is observed as in both theories responsibility and blame attributions lie ground to determining whether an unfortunate event is perceived as a crisis. However, Image repair theory does differ from Attribution theory as it also distinguishes between restoration strategies (Benoit, 2000). Therefore, we might state that Image repair theory builds on Attribution theory and presents us a more elaborate guideline on how to handle a corporate crisis. Based on the two previously discussed Image restoration components, Benoit (1997) additionally distinguishes between five reputational restoration strategies a company can adopt; denial strategy, evasion of responsibility, reducing offensiveness of events, corrective action and mortification strategy. Denial strategy itself consists of two sub strategies; simple denial and shifting the blame (Benoit, 1997). A company adopting a simple denial response strategy denies all allegations that were made towards the company. Adopting a ‘shifting the blame’ strategy would result in the company blaming another party for causing the unfortunate events that led to the corporate crisis.

The second restoration strategy, evasion of responsibility, is also divided in sub-strategies; provocation, defensibility, accident and good intentions. The “good intentions” strategy is one of the most used evasion of responsibility sub-strategies. Here, the company diminishes their act by emphasizing their good intentions (Benoit, 1997).

To reduce the perceived offensiveness of an act, which is the third restoration strategy, companies could use the sub-strategy of bolstering. Here, the company stresses their good traits in order to repair their reputation. Other sub-strategies belonging to the third category

are minimization, differentiation, transcendence, compensation and attacking the accuser. The fourth reputational restoration strategy is named corrective action. When adopting a corrective action strategy, the company promises the victims to correct the problem that caused the crisis to occur. Moreover, it is beneficial for the company to stress that actions are being undertaken to prevent such a crisis from happening again. The last, and fifth, restoration strategy is called mortification. By apologizing for the act that caused the crisis, companies seek forgiveness in their stakeholders and attempt to restore their relationship (Benoit, 1997).

What lacks in Image repair theory by Benoit (1995) is the recommendation on 'when' to use which crisis response. The study of Arendt, LaFleche and Limperopoulos (2017) sought to explore Image repair theory as well as crisis communication, and fill the gap in existing literature. The study explicates what restoration strategy, defined in Image repair theory, was deemed most successful and least successful amongst a sample. Their results presented 'corrective action' as being most successful in restoring corporate reputation. This means that a promise of crisis restoration and future crisis prevention is seen to have the most impact on the corporate reputation restoration process (Benoit, 1995). The Image repair strategy that proved to be least successful was the 'denial' strategy. Arendt et al. (2017) explain that companies who employ a denial response are perceived as less credible and transparent. Moreover, Arendt et al. (2017) reported that the most frequent restoration strategy used is a denial response. This finding is noteworthy as it proved to be the least successful strategy from the Image repair model.

Another downside of the Image repair theory is its aim to identify 'multiple audiences' during a corporate crisis. Whereas this would seem as an advantage of the theory, in fact it is not. The theory fails to clarify how this identification process would work (Benoit, 2000). Benoit (2000) argues that it is important to consider the possibility of multiple audiences with differences in interests that would appreciate a customized crisis response message. A better explanation on how to identify these distinct audience groups would have benefitted the practicability of the theory.

### **2.3 SCCT: Situational Crisis Communication Theory**

Situational crisis communication theory, or SCCT, "draws upon experimental methods and social-psychological theory" (Coombs, 2007c). Therefore, we might state that SCCT is built on the premise of Attribution theory. Just like Image repair theory, Situational crisis communication theory explores and distinguishes between various crisis response strategies. Where Image repair theory only focuses on response strategies, SCCT adds on to this by

exploring the crisis situation. SCCT distinguishes between three components; the crisis situation, the crisis response strategies and the system in which the right crisis response is matched to the specific crisis situation (Coombs, 2006). “By understanding how much crisis responsibility a crisis type is likely to generate, a crisis manager can predict the reputational threat posed by the crisis type”(Coombs, p.267, 2004). Based on these premises, a crisis restoration plan can be established. Whereas the crisis response in Image repair theory is based on perceived corporate responsibility and to what extent the actions are seen as offensive, in SCCT crises are ranked based on the severity of the reputational threat (Benoit, 1995; Coombs, 2004).

Moreover, Coombs (2006) argues that all stakeholders attribute a certain amount of responsibility to the cause of the crisis. The crisis history of a company as well as the history of the customer relationship influence this attribution process. These two factors are seen as intensifiers of stakeholders’ crisis perception (Coombs, 2006). Contrary to theories like Attribution theory and Image repair theory, Coombs (2006) classifies crisis types by the level of crisis responsibility. Here, each crisis type is attributed to a cluster. Coombs (2006) distinguishes between the victim cluster, the accidental cluster and the preventable cluster. Clustering similar crises together makes it easier for companies to install crisis prevention mechanisms as well as pre-set crisis responses. Therefore, SCCT is the first theory to distinguish between crisis types that enable the installation of pre-set customizable crisis response messages. These pre-set crisis responses can be implemented when a crisis is on the verge of happening or has happened already. Thus, this minimizes the corporate reputational damage (Coombs, 2006).

To come back to the clusters, the Victim Cluster contains crises that provide a mild reputational threat to a company. Crises that pertain to this category are either natural disasters, rumours, workplace violence or product malevolence. An example of a crisis categorized in the victim cluster would be a power drop out at a power station caused by extreme weather conditions. The Accidental Cluster poses a moderate reputational threat to a company. Crises that can be categorized into this cluster are caused by organizations themselves (Appendix A, Figure 1). However, actions leading to the crisis were unintentional (Coombs, 2006). The Preventable Cluster contains crises that pose a severe reputational threat to a company. This cluster identifies organizations that knowingly placed people at risk by violating laws and regulations (Coombs, 2006, p.244). A good example of such a preventable crisis would be the Wells Fargo crisis. Here, employees were intentionally forced by their management to create fake user accounts. These fake user accounts led to customers being

deceived or even losing large amounts of money (Cowley, 2016).

As all three theories argue, reputation is by many academics perceived as the most valuable asset a company possesses. Therefore, a possible risk of losing it during a crisis would be devastating for the company. Safeguarding the reputation is therefore an evident task every company must carry out. Coombs (2006, p.247) therefore distinguishes between three options for using crisis response strategies: "(1) Deny response option: establish that no crisis exists, (2) Diminish Response Option: alter the attributions about the crisis event to make it appear less negative to stakeholders, or (3) Deal Response Option: alter how stakeholders perceive the organization—work to protect/repair the reputation by for example adopting an apology strategy". Like with Benoit's (1997) Image repair theory, SCCT distinguishes between response strategies that can be found in Appendix A, Figure 2.

Comparing the two theories to one another, some similarities as well as differences can be discovered. Where Image repair theory adopts five different main restoration strategies, SCCT distinguishes between only three crisis response strategies. Similar to Image repair theory, SCCT also distinguishes between substrategies. Comparing the response strategies from both theories to one another we can see that the deny strategy is present as a main-strategy in both theories (Claeys & Cauberghe, 2011). In both theories the deny strategy is built on the same premises as both theories would deny any responsibility for the crisis. Coombs (2006) explains it as, 'There is a crisis going on but the company is not involved in the crisis'. When taking a closer look at the second response strategy, the diminish response, another overlap is found with Image repair theory. In Image repair theory, the diminish response is categorized as part of main strategy 'evading responsibility' (Benoit, 2000). In SCCT, the diminish response is shown as one of the main response strategies. In both cases, adopting a diminish strategy indicates a response that states that the crisis was never intentional and a result of circumstances beyond control of the company (Benoit, 2000; Coombs, 2006).

Moreover, "the diminish response option reflects the attribution theory aspect of SCCT" (Coombs, 2006, p. 247). Here, the company in crisis accepts that the crisis occurred and that they are involved in the crisis. Then, in order to reduce the reputational damage the crisis can cause, the company tries to change the attributions made by the stakeholders and thus minimize the reputational damage(Coombs, 2006). The most frequently used response option that is classified under the Deal response category is apology. By adopting an apology strategy, the company takes full responsibility for the crisis and directly asks stakeholders for forgiveness. This strategy again matches with a restoration strategy of Image repair theory. Here, the apology strategy is called mortification and is used only when corporate

responsibility for the crisis cannot be abnegated (Benoit, 1995; Coombs, 2006).

Where Weiner (1972) in Attribution theory does not distinguish between crisis responses, SCCT makes it possible to predict what SCCT response option would be preferred during different types of crises according to Attribution theory (Claeys, Cauberghe & Vyncke, 2010). Taking into account the locus of control principle where the locus is identified as being external, and thus based on situational forces of the environment, or internal, where personal forces of the actor play a role, Attribution theory would plea for a response based on the perception locus of the observer (Claeys, Cauberghe & Vyncke, 2010). The locus of control implies the preference for internality or externality of a person. Claeys et al. (2010) explain this with an example. Imagine that a person has obtained a very low grade for a test. On the one hand, this person can choose to attribute the cause of this bad grade to the bad teaching of the lecturer (external). In this way, an external factor is blamed for the negative situation. On the other hand he could acknowledge that he has not been studying hard enough (internal).

Consequently, externally focused people would prefer a deny strategy in order to evade the responsibility for their bad grade. Internally focused people, on the contrary, would prefer a rebuild strategy as they take full responsibility for their own actions. Claeys et al. (2010) therefore pose that the SCCT diminish response, which acknowledges medium responsibility, would be equally preferred by internal and external locus people. Therefore, a diminish response would be preferred by the largest amount of people, according to Attribution theory (Claeys, Cauberghe & Vyncke, 2010). As can be seen, a trend can be detected between Attribution theory, Image repair theory and SCCT; all are based on the same premises. However, SCCT incorporates a larger amount of sub-response categories. In result to that, each specific crisis can be better obviated by these more specific crisis responses.

The last component of SCCT in which the matching process of response strategies and crises categories takes place, might be the most important step in the crisis defining process. Furthermore, SCCT is the only theory that, besides incorporating crisis clusters, matches the response strategy to the crisis cluster. Coombs (2006) argues that for crises categorized in the Victim cluster it is best to use a deny response. When a company is able to prove that they are not responsible for causing the crisis, it is best to deny circulating rumours in order to prevent severe reputational damage from happening (Coombs, 2006). In the Accidental cluster that produces stronger attributions of responsibility, a diminish response should be adopted in order to prevent, or cure, damage to the corporate reputation. By assuring the public that the cause of the crisis was out of the company's control, damage to the corporate reputation can be mitigated.

For the Preventable cluster, that categorizes most severe crises, adopting an apology strategy would have the preference. Here, it is inevitable that the cause of the crisis can be fully attributed to the company's actions. Therefore, a company facing such a crisis should deal with their responsibility and come clean in order to confine the reputational damage (Coombs, 2006). Moreover, according to Yang, Kang and Johnson (2010) apology strategy has been found to be the most effective strategy to minimize anger and increase supportive behaviour by the victims and stakeholders in general. With this knowledge we know that the preventable crisis, which was used in this study, would thrive best by adopting an apology response. This strategy was expected to have the most positive effect on the public's corporate reputation perceptions as well as their behaviour intentions toward the company. All in all, SCCT is the strongest and most elaborate crisis restoration theory as it builds on Attribution theory and adds on to Image repair theory. By distinguishing between types of crises, types of crisis responses and even combining the two, in order to create the utmost chance to minimize the reputational damage, SCCT is seen to be the most appropriate theory to adopt for analyzing a corporate crisis.

#### **2.4 The paracrisis**

As a company, having strategies in place is one thing, preventing a crisis from happening is another. In an early stadium a crisis is called a public challenge threat (Coombs & Holladay, 2012). This public challenge threat is something in between nothing and a full blown crisis; it functions as a warning that a crisis is on the verge of happening. Coombs and Holladay (2012, p. 409) named this type of threat a 'paracrisis'; "a publicly visible crisis threat that charges an organization with irresponsible or unethical behaviour". The difference between any other crisis threat and the paracrisis is clear. The paracrisis is characterized by corporations acting irresponsibly or unethically. The paracrisis is thus perceived as 'preventable' (Coombs, 2006). For this reason, natural disasters could never be a paracrisis. In a paracrisis stakeholders such as employees or customers start to petition the organization publicly and judge their behavior where anyone is able to see it. Stakeholders petition companies in order to inflict change in corporate behavior. Public petitioning can therefore be seen as a warning sign for organizations that a paracrisis is currently developing (Coombs & Holladay, 2012).

Just like in a traditional crisis, a paracrisis can lead to organizations suffering reputational damage (Coombs & Holladay, 2012). The petitioning of stakeholders often happens on social media platforms. For that reason, the negative messages are spread rapidly amongst a wide audience, making the threat increasingly public (van Zoonen & van der Meer,

2015). Where a corporate crisis starts out to be visible online as well as offline, the paracrisis is an online sign that a full blown crisis is on the verge of happening (Kim, Zhang & Zhang, 2016). As anyone with access to the internet is able to view the paracrisis, the paracrisis is inherently visible in nature (Roh, 2017 ; Kim, Zhang & Zhang, 2016). Therefore, mistreatment of the crisis can have a devastating effect on the reputation of a company, it can be destroyed within days, even hours (Pang, Hassan & Chong, 2013).

The online platforms not only provide the opportunity to send out messages, they are more interactive in nature and make two-way communication possible (van Zoonen & van der Meer, 2015). This indicates that stakeholders can more easily share and respond to stories. This means however, that companies can take advantage of this communication platform too in order to prevent a full-blown crisis from taking place (Coombs & Holladay, 2012 ; Pang, Hassan & Chong, 2013). Therefore, social media platforms should be constantly monitored by organizations in order to detect warning signs fast (Coombs & Holladay, 2012). However, where the first step is to identify the paracrisis, the second step is to evaluate and respond to one (Ruggiero & Vos, 2014).

According to Coombs & Holladay (2012), assessing the paracrisis involves measuring the impact of the paracrisis as well as the likelihood that the paracrisis will turn into a full-blown crisis. This is dependent on the stakeholders involved and if they define the corporate behaviour as being problematic. Moreover, corporate managers should examine whether the claims made by stakeholders can be proved or backed-up by evidence. If so, the likelihood that the paracrisis will turn into a full-blown crisis is a given when the paracrisis is not handled in the right way (Coombs & Holladay, 2012; Kim, Zhang & Zhang, 2016). In order to handle the paracrisis effectively, three broader primary response strategies are presented; refute, reform, and refuse. “Refutation defends the organization’s current practices and is an escalation of the conflict with the challenging stakeholders”(Coombs & Holladay, 2012, p. 412). Reform, however, is a milder strategy to deal with the paracrisis. Adopting a reform strategy ensures that the demands of the stakeholder are fulfilled by the management of the company that is facing a crisis. In order to fulfil the needs of the stakeholder, it is evident for the company to change its behavior accordingly (Coombs, & Holladay, 2012). The last strategy, refuse, occurs when the management of a company does not acknowledge the challenge and ignores the problem with the hope that the paracrisis disappears due to a lack of attention (Coombs & Holladay, 2012).

Comparing these three very broad strategies to SCCT, which is a common theory used to battle crises, we can see that the paracrisis response model is in its early stages of

development. Here the question emerges, 'Do SCCT response strategies work for the paracrisis? We know that SCCT offers various ways to respond to a crisis, but whether they do work for paracrises has not extensively been researched before (Coombs & Holladay, 2012; Kim, Zhang & Zhang, 2016; Roh, 2017). Therefore, it would be beneficial to study this relation and add onto existing literature. As clues for a paracrisis emerge on online media platforms, it would be interesting to see what response strategy would work best in order to decrease reputational damage. To test the effect of such response strategies on the corporate reputation, three response strategies were selected. All three response strategies that were studied stem from SCCT; Denial, Diminish and Apology (Appendix A, Figure 2). As explained before, we expected apology to have the most positive effect on the corporate reputation and the public's behaviour intentions. In order to test whether apology has the most favourable effect on perceived corporate reputation in a preventable crisis, the following hypotheses were established:

*H1a: An apology response has a more favourable effect on the perceived post-crisis reputation in a preventable crisis than a denial or diminish response.*

*H1b: An apology response has a more favourable effect on the public's behaviour intentions in a preventable crisis than a denial or diminish response.*

## **2.5 The message source: CEO**

When individuals make normative judgements, these judgements are based on three factors. The first factor revolves around the intentionality of the action, which is explained by the SCCT model as well as Attribution theory (Roh, 2017). The second factor that is taken into account in the judgement process are the obligations of the actor. The person with the highest level of power is expected to have greater moral obligations than a person with a lower level of power. The third and last factor revolves around blame attributions based on the consequences of an act. People are more likely to attribute blame to an act that has severe consequences (Roh, 2017). Given this, it is very important for a company to know who should be deployed as the message source in a corporate crisis. The person that is deemed most credible has more influence on the public's attitude towards the company and is perceived as increasingly trustworthy (Haigh & Brubaker, 2010). Moreover, people that are perceived as more credible are increasingly able to persuade the behaviour of the public and positively influence the attitude towards the brand (Pornpitakpan, 2004).

Reidenbach and Pitts (1986) studied the perceived credibility and persuasiveness of CEO's as a message source. What they found is least to say interesting. When a person perceived the corporate actor being similar to him- or herself, the corporate actor was considered as more credible. Therefore, CEO's would be perceived as more credible by people that have similar corporate positions, looks or interests (Reidenbach & Pitts, 1986). In regards to that, it would be more likely that the majority of the population would perceive the employee as more credible as only a diminutive amount of the population occupies a management position. Roh (2017) states that CEO's receive more media attention from online as well as offline media. This indicates that CEO's possess a wider public reach that could be used to spread the corporate crisis response to a vast amount of people. This does however not indicate that the CEO is perceived as being more credible and trustworthy, it merely states that the message is spread faster.

With his theory of the "deep pockets effect" Vidmar (1993) explains that people attribute more blame to an actor that is seen as powerful and wealthy. Therefore, a CEO is often held accountable for corporate crises, even if they are not the cause of it. As CEO's in general have a high level of power in- and outside the company, there is a likely chance that the blame of a corporate crisis would be attributed to the CEO of a company. For this exact reason, it might not be the best choice for a company to deploy the CEO as the message source in times of a crisis. People earning lower or average wages will likely perceive the CEO as less credible since they do not identify themselves with this person (Reidenbach & Pitt, 1986). Contrary to Reidenbach and Pitt's (1986) study, Edelman's Eurobarometer (2018) provided proof that when a CEO remains silent on important issues, 56 per cent of the public answered to have no respect for the CEO in place. This means that, if the CEO does not respond to the crisis, the perceived credibility, trustworthiness and believability would decline amongst the majority of the public.

Furthermore, employees (79%) are perceived as more believable than CEO's (29%) by the public. There however is a trend observed in which the CEO credibility is on the rise. Looking at the numbers of 2018 compared to those of 2016, CEO's have gained seven points on the credibility scale whereas employees lost one point (Edelman, 2018). This however does not mean that CEO's (44) score higher, as their score is still three points behind the perceived credibility of the employee (47). Therefore, even if the perceived source credibility is higher when this position is occupied by an employee, the CEO should in no case remain silent as this would have a negative effect on the corporate reputation restoration process.

## 2.6 The message source: The employee

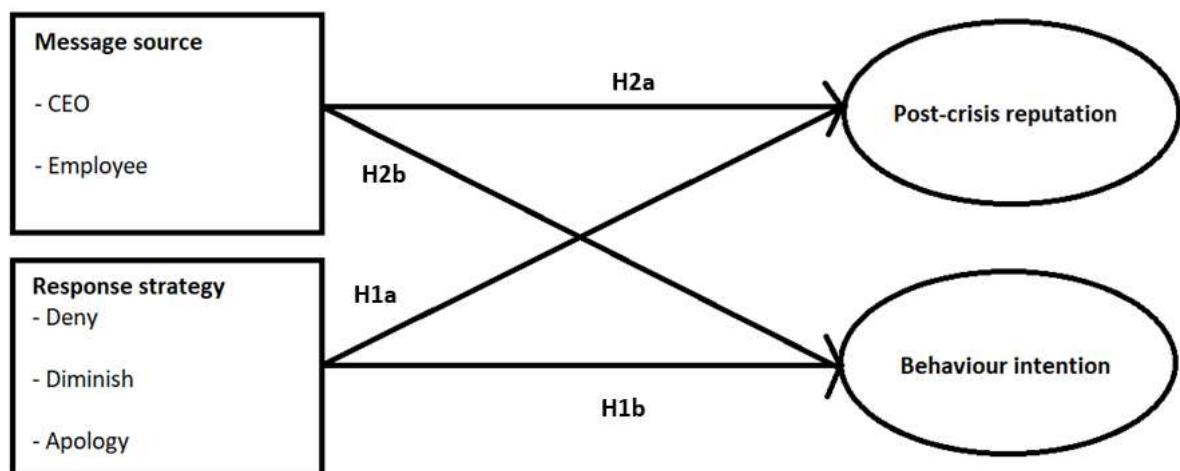
Taking into account Reidenbach and Pitt's (1986) argument that similarity increases perceived favourability and credibility, it could be argued that deploying employees as the message source for a company under crisis would result in mainly lower and middle class citizens showing sympathy. Lower and middle class people would view themselves as being similar to the employee (Arpan, 2002). According to Yang, Kang and Johnson (2010), identification, by perceived similarities between the message source and self, stimulates the public's engagement and their perceived source credibility. This indicates that a vast amount of people would define employees as being credible message sources. Helm (2011, p.658) agrees to this statement by arguing that "the greatest reputation leverage can be achieved through employees". In a time of social media, the role of employees in advocating corporate messages has become increasingly important as they provide a unique source of information to the public. As the public perceives employees as being trustworthy message sources, employees prove themselves being very useful in shaping corporate reputations (van Zoonen, van der Meer & Verhoeven, 2014). According to van Zoonen et al. (2014, p.850), "The voluntary nature of the messages, by knowledgeable employees, might result in a positive evaluation of the content they spread in terms of credibility and trustworthiness". Therefore, in general employees are perceived as highly credible and trustworthy message sources. Moreover, Yang, Kang and Johnson (2010) argue that besides source credibility, openness to dialogic communication is a must during a corporate crisis. Throughout this dialogue, a certain degree of a relationship is built and established, which is rooted in equality. Where the public would perceive a CEO as more formal and less accessible, a dialogue with the employee of a company in crisis would surely open up a new range of possibilities. Rather than fulfilling the role as the 'onlooker', the employee, who is perceived by the public as more 'alike' and 'accessible', would be able to open up a honest dialogic loop in which the trust of, and engagement with, the public is fortified (Yang, Kang & Johnson, 2010). Therefore, it would be best to galvanize employees in the crisis solving process (Edelman, 2018). All in all, previous literature indicates that in a corporate crisis it would be likely that employees are perceived as more credible, engaging and accessible than CEO's. In order to test this assumption, the following hypotheses were tested:

*H2a: The employees are seen by the public as a more credible message source than the CEO of a company in a preventable crisis and therefore have a more positive influence on the company's post-crisis reputation.*

*H2a: The employees are seen by the public as a more credible message source than the CEO of a company in a preventable crisis and therefore have a more positive influence on the public's behaviour interntion.*

## 2.7 The message source and the response strategy: a cross-comparison

Taking into account all four hypotheses, a relationship was expected between the message source (CEO or employee) as well as the crisis response strategy (deny, diminish and apology), and the post-crisis reputation as well as the behaviour intentions. The employee is perceived to be the most believable and trustworthy source by the public (Helm, 2011; Edelman, 2018). Moreover, Yank, Kang and Johnson (2010) present that perceived similarities between the message source and the self stimulates the public's engagement and their perceived source credibility. Therefore, a corporate response featuring the employee was perceived to have the most positive effect on post-crisis reputation and the public's behaviour intentions (Helm, 2011). Moreover, looking into the response strategies provided by SCCT, the apology strategy was seen to have the most positive effect on crises that were attributed to the preventable cluster, in which our fictitious crisis can be categorized in (Coombs, 2006). Moreover, according to Yang, Kang and Johnson (2010) apology strategy has been found to be the most effective strategy to minimize anger and increase supportive behaviour by the victims and stakeholders in general. All in all, previous academic literature indicates that the employee should function as the message source while adopting an apology strategy in order to obtain the most positive effect possible on post-crisis reputation perceptions and behavior intentions.



**Figure 1: Conceptual model**

### **3. Method**

#### **3.1 Research design**

In this study an online experiment was conducted using a 2 x 3 factorial between-subject design for a total of 6 conditions. Experiments are widely used in crisis management research as they examine the causality of actions and results (Shadish, Cook & Campbell, 2002). Therefore, this study also adopted an experiment method in order to explore causality (Roh, 2017). This factorial design compared between subjects. This means that the message source (CEO vs. employee) and responding strategy (diminish vs. apology vs. denial) were compared to one another. Conducting an online experiment helps in gathering more valid data due to the randomization of conditions appointed to the respondents. Moreover, in similar studies such as in Roh (2017) the relation between message source and response strategy was successfully used.

The data for this study was collected by means of an experiment, created via the online tool ‘Qualtrics’. McDaniel & Gates (2012) state that online survey experiment tools are very useful in obtaining raw data that develop an idea of the causal work which produces straight numbers. These straight numbers provide a good representative of the entire sample of respondents participating in this study. This study aimed to obtain at least 180 respondents, 30 respondents for each condition. Finally, 294 respondents were included in the dataset. Participants that were excluded from the dataset did not meet the inclusion criteria set out in paragraph 3.2, or failed to finish the experiment.

This study aimed to measure the effect of a message source on corporate reputation and behavior intentions. Moreover, the study sought to measure the effect of response strategies on corporate reputation and behaviour intentions. To compare the means of all conditions to one another, a one-way ANOVA test was run. The fixed factors in the ANOVA were the ‘message source’ and ‘message credibility’. These factors were incorporated in an ANOVA with dependent variables ‘post-crisis reputation’ and ‘behaviour intentions’, respectively. Furthermore, two manipulation checks were executed. One measured the “message source” and the “corporate actor credibility”. The other manipulation check measured the “response strategy” and “message credibility”. Manipulation checks are run to increase the internal validity of the experiment.

#### **3.2 Sampling and data collection**

The aim of this study was to collect data by adopting a simple random sampling method. Alasutari, Bickman and Brannen (2009, p. 24) explain that “In simple random sampling, a

researcher develops an accurate sampling frame, selects elements from the sampling frame according to a mathematically random procedure, and then locates the exact element that was selected for inclusion in the sample". As the only criterion for participating in this experiment entails being 18 years or older, it was decided that the online experiment would be shared via online tool MTurk in order to grasp a wide range of people with different ages, genders and interests.

The experiment was published on MTurk at the 13<sup>th</sup> of April, and remained available until the 23<sup>rd</sup> of April. A timeframe of ten days gave the study the opportunity to collect enough responses. This study aimed to obtain 30 participants per condition at minimum. The following distributions were of hand: CEO\*deny = 50, CEO\*diminish = 48, CEO\*apology = 47, Employee\*deny = 45, Employee\*diminish = 52 and Employee\*apology = 52. The benefit in collecting data through MTurk is that a vast amount of participants are able to be recruited without investing large amounts of valuable time. Roh (p.591, 2017) states that "online data collection with online participants might be particularly applicable to studies of perceptions of online contents". The statement links to this study as participants were asked to share their perceptions on six different conditions that showed a fictitious online news article. Here, each condition contained a specific combination of the message source and response strategy in the form of fictitious Facebook statements. In order to address the right participants, search words like "corporate crisis", "CEO" and "employee" were used. When participants clicked the link, they were directed to the online survey experiment in Qualtrics and randomly assigned to a condition. As Roh (2017) states, randomization increases the level of validity of the data subtracted from the experiment.

At the beginning of the experiment, participants were provided with an informational text. This informational text was an indicator for participants of what they could expect during their participation, without giving away the true purpose of the experiment. Besides explaining the topic in general, the terms and conditions for participants were explained here. Participants had to agree to the terms before they could continue their participation. To safeguard the response credibility of participants, a test question was incorporated into the experimental design (At what University does the creator of the experiment study?). Participants that failed to give the right answer, 'Erasmus University Rotterdam', were excluded from the experiment. This was done as full comprehension of what is discussed in the experiment was regarded necessary in order to obtain valid results. When these criteria were not met, participation could not be regarded as credible. Thus, the answers of such participants would be useless and would inflict bias to the final results.

When proceeding, participants were provided with a company description of PlasTech Innovations. The experiment furthermore provided a small biographical text that introduced corporate actor George Allington who was either presented as the CEO or the employee. Hereafter, the experiment sought to measure the pre-crisis reputation based on previous explained stimuli. When participants finished answering the pre-crisis reputation questions, the experiment asked them to proceed to the next screen. Here, a fictitious online news article was shown that reported on the crisis. Accordingly, participants were exposed to a Facebook post belonging to one out of six conditions. These fictitious Facebook posts each contained a different response strategy combined with a different message source. Accordingly, participants were asked to fill out the remaining questions based on the news article stimuli, as well as the Facebook post stimuli.

Before the finalization of the participation, some demographical questions that revolved around gender, age and level of education were asked. Throughout the entire experiment a mandatory response option was in force. This was done in order to prevent categories to remain unanswered, which would have resulted in data loss and a decrease of validity. Furthermore, the experiment featured a 'thank you' message for participating. Moreover, participants were given the opportunity to fill out their email addresses in order to be informed on the final outcome of this study. In order to validate that each and every participant had filled out the experiment with care, a validation code was given in the end of the experiment. When no attention was paid, participants missed the code and could not fill it out in the final screen of the online experiment. Therefore, participants that failed to fill out the code were perceived as non-reliable and were thus excluded from the final dataset.

Variables	M	SD	Correlation <i>Post-crisis rep.</i>	Matrix		Pre- crisis rep.	Crisis resp.	Messag e cred.	Neg. emotio ns	Message source cred.
				<i>Behav. Int.</i>						
<i>Post-crisis reputation</i>	3.13	1.54	1.000							
<i>Behaviour intention</i>	2.54	1.57	.802**	1.000						
<i>Pre-crisis reputation</i>	4.79	1.20	.329**	.239**	1.000					
<i>Crisis responsibility</i>	5.29	1.30	-.630**	-.629**	-.099	1.000				
<i>Message credibility</i>	3.22	1.58	.755**	.650**	.287**	-.563**	1.000			
<i>Negative emotions</i>	2.96	1.51	.562**	.582**	.081	-.438**	.507**	1.000		
<i>Message source credibility</i>	3.35	1.66	.819**	.713**	.323**	-.588**	.910**	.537**	1.000	

Significance: \*\* $p < .01$

Table 3.2: Correlation matrix and the demographics of the variables

### 3.3 Operationalization

In the experiment that was conducted for this study, seven different attributes were tested: pre-crisis reputation, post-crisis reputation, crisis responsibility, negative emotions, source credibility, message credibility and behaviour intentions. All scales used were validated in previous research.

*Pre-crisis reputation and post-crisis reputation.* To measure pre-crisis as well as post-crisis reputation, the “Firm reputation scale” was used, which was extracted from the handbook of marketing scales (Bearden & Netemeyer, 1999). This scale consists of a brand being ‘reliable’, ‘responsible’ and ‘believable’. A 7-point Likert scale was used to measure whether participants did agree or did not agree to the statements made during the experiment. In order to validate the scale, a reliability test was run. All items belonging to the “Firm reputation scale” were included in the reliability test. Looking at the Reliability statistics table, a Cronbach’s alpha of .873 was found for the “Pre-crisis reputation scale” which indicates that the scale is reliable (Pallant, 2014). Also, for the “Post-crisis reputation scale” a

reliable Cronbach's alpha value was found (.925). Since the scales proved to be reliable, all items were combined into a mean scale "Pre-crisis reputation" ( $M = 4.79$ ,  $SD = 1.20$ ) and "Post-crisis reputation" ( $M = 3.13$ ,  $SD = 1.13$ ). The mean scale indicated the weighted average of the newly constructed factors.

*Crisis responsibility.* The attribute of crisis responsibility was measured by the "Blame scale" created by Griffin, Barbin and Darden (1992) (Cronbach = .92). The three components that made up the attribute of crisis responsibility were the following: "Circumstances, not the organization, are responsible for the crisis", "The blame for the crisis lies with the organization", "The blame for the crisis lies in the circumstances, not the organization." A 7-point Likert scale was used, with response options ranging from 'agree' to 'disagree'. In order to validate the scale, a reliability test was run. Before the actual reliability test was conducted, the first and the third item were reversed in order to create a compatible scale. After this, all items belonging to the "Blame scale" were included in the reliability test. Looking at the Reliability statistics table, a Cronbach's alpha of .774 was found. This indicates that the scale is reliable (Pallant, 2014). Since the scale proved to be reliable, all items were combined into a mean scale which was called "Crisis responsibility" ( $M = 5.29$ ,  $SD = 1.30$ ). The mean scale indicated the weighted average of the newly constructed factor.

*Negative emotions.* In order to measure negative emotions participants encountered after being informed on the crisis, the "Emotions measure" scale was used, which was extracted from a study from Kim and Cameron (2011) (Cronbach = .96). Out of the original scale that consisted of 17 components, only three components were selected based on their negative connotation. The components that were extracted pose the statements "I feel very; angry, disgusted, sickened". A 7-point Likert scale was used with response options ranging from 'not at all' to 'very much'. In order to validate the scale, a reliability test was run. All items belonging to the "Emotions measure scale" were included in the reliability test. Looking at the Reliability statistics table, a Cronbach's alpha of .927 was found for the "Emotions measure scale", which indicates that the scale is reliable (Pallant, 2014). Since the scale proved to be reliable, all items were combined into a mean scale which was named "Negative emotions" ( $M = 2.96$ ,  $SD = 1.51$ ). The mean scale indicated the weighted average of the newly constructed factor.

*Message credibility.* The message credibility was measured by the "Corporate message credibility scale" which was also extracted from the Kim and Cameron (2011) study (Cronbach = .94). Here, six components were measured namely; amount of bias, amount of accuracy, believability, convincingness, trustworthiness, telling the whole story or not. A 7-point Likert

scale sliding bar was used to measure participants' message credibility perception. Moreover, this variable was incorporated in the manipulation check as it accounted for measuring credibility perceptions of response strategies. In order to validate the scale, a reliability test was run. All items belonging to the "Corporate message credibility scale" were included in the reliability test. Looking at the Reliability statistics table, a Cronbach's alpha of .959 was found for the "Corporate message credibility scale", which indicates that the scale is reliable (Pallant, 2014). Since the scale proved to be reliable, all items were combined into a mean scale "Message credibility"

( $M = 3.22$ ,  $SD = 1.58$ ). The mean scale indicated the weighted average of the newly constructed factor.

*Corporate source credibility.* Just like the message credibility attribute, the "Corporate source credibility" attribute was measured by a 7-point Likert scale incorporating a sliding bar. This scale was likewise mentioned in the Kim and Cameron (2011) article (Cronbach = .92). The components that together established the scale were the following; reliability, sincerity, trustworthiness, honesty, believability, level of experience, being an expert or not. Moreover, this variable was incorporated in the manipulation check as it accounted for measuring credibility perceptions of the message source. In order to validate the scale, a reliability test was run. All items belonging to the "Corporate source credibility" were included in the reliability test. Looking at the Reliability statistics table, a Cronbach's alpha of .975 was found for the "Corporate source credibility scale", which indicates that the scale is reliable (Pallant, 2014). Since the scale proved to be reliable, all items were combined into a mean scale

"Message source credibility"

( $M = 3.35$ ,  $SD = 1.66$ ). The mean scale indicated the weighted average of the newly constructed factor.

*Behaviour intentions.* The scale "Future behavioural intentions" could be found in the study of Kim and Cameron (2011) (Cronbach = .94). Here, participants were to rate the likelihood of three different statements; "I would be willing to purchase the products of the company in the future", "I would be willing to invest in the company in the future" and "I would recommend a product from this specific company to a friend if I could in the future". Participants were asked to estimate the likelihood of purchasing, investing and recommending the product, by rating on a 7-point Likert scale. In order to validate the scale, a reliability test was run. All items belonging to the "Future behavioural intentions scale" were included in the reliability test. Looking at the Reliability statistics table, a Cronbach's alpha of .949 was found for the "Future behavioural scale", which indicates that the scale is reliable (Pallant, 2014).

Since the scale proved to be reliable, all items were combined into a mean scale “Behaviour intentions” ( $M = 2.54$ ,  $SD = 1.57$ ). The mean scale indicated the weighted average of the newly constructed factor.

Variables	Mean	SD
<b>Pre-crisis reputation</b>	4.79	1.20
<b>Post-crisis reputation</b>	3.13	1.13
<b>Crisis responsibility</b>	5.29	1.30
<b>Negative emotions</b>	2.96	1.51
<b>Message credibility</b>	3.22	1.58
<b>Corporate source credibility</b>	3.35	1.66
<b>Behaviour intentions</b>	2.54	1.57

Table 3.3.1: Statistical variable information (Mean and Standard deviation)

Variables	Q	Factor	KMO & Bartlett	Variance (%)	Alpha
<b>Post-crisis reputation</b>	<ul style="list-style-type: none"> <li>- Q1 - “This brand is reliable/unreliable”</li> <li>- Q2 - “This brand is responsible/irresponsible”</li> <li>- Q3 - “I do believe/NOT believe in this brand”</li> </ul>	.993 .928 .936	.764 (.000)	86.97	.925
<b>Behaviour intentions</b>	<ul style="list-style-type: none"> <li>- Q4 - “I would purchase the products of PlasTech Innovations if I have the opportunity in the future”</li> <li>- Q5 - “I would invest in PlasTech Innovations if I have the opportunity”</li> <li>- Q6 - “I would recommend PlasTech Innovations’ products to a friend if I have the opportunity in the future”</li> </ul>	.944 .946 .968	.751 (.000)	90.80	.949
<b>Pre-crisis reputation</b>	<ul style="list-style-type: none"> <li>- Q7 - “This brand is reliable/unreliable”</li> <li>- Q8 - “This brand is</li> </ul>	.877 .908	.736 (.000)	79.80	.873

- Q9	responsible/irresponsible" - "I do believe/NOT believe in this brand"	.895			
<b>Crisis responsibility</b>					
- Q10	- "Circumstances, not the organization, are responsible for the crisis"	.874	.656 (.000)	68.97	.774
- Q11	- "The blame for the crisis lies with the organization"	.740			
- Q12	- "The blame for the crisis lies in the circumstances, not the organization"	.871			
<b>Message credibility</b>	"I found the message posted by George Allington to be:"				
- Q13	- "Biased / unbiased"	.852	.920	82.94	.959
- Q14	- "Inaccurate / accurate"	.897	(.000)		
- Q15	- "Unbelievable / believable"	.940			
- Q16	- "Unconvincing / convincing"	.939			
- Q17	- "Untrustworthy / trustworthy"	.945			
- Q18	- "Not telling the whole story / telling the whole story"	.888			
<b>Negative emotions</b>					
- Q19	- "When I read previous text I feel angry/not angry"	.918	.752 (.000)	87.34	.927
- Q20	- "When I read previous text I feel a bit disgusted/not disgusted"	.950			
- Q21	- "When I read previous text I feel a bit sickened/not sickened"	.936			
<b>Message source credibility</b>	"I found George Allington to be:"				
- Q22	- "Unreliable / reliable"	.939	.921	90.96	.975
- Q23	- "Insincere / sincere"	.941	(.000)		
- Q24	- "Untrustworthy / trustworthy"	.966			
- Q25	- "Dishonest / honest"	.959			
- Q26	- "Unbelievable / believable"	.964			

Table 3.3.2: Statistical variable information (Factor loadings, KMO, Bartlett, Explained variance, Alpha)

### 3.4 Stimuli construction

The stimuli that were used in the online experiment focused on a fictitious crisis. Stimuli included were a corporate introduction, a biographical text, the crisis description and Facebook posts representing the six experimental conditions. This study incorporated a corporate introduction text as well as a biography of main actor George Allington, in order to measure the pre-crisis response of participants (Appendix B, p.64). The company introduction was incorporated as it provided participants of a basic idea of what PlasTech Innovations as a company entailed. Here, participants were given the opportunity to create an image of the overall company. The company description clarified that the Plastech Innovations' headquarters is based in St. Charles, Michigan. PlasTech Innovations was stressed to be a global company that operates in over 35 countries where it sets off its chemicals, plastics and agricultural products. As explained, PlasTech Innovations was ranked the world's largest plastic manufacturer during 2008, employing nearly 50.000 people worldwide and generating annual sales of \$49 billion.

Also, a biography was provided in which the persona of George Allington was described. Based on the "message source" condition, George Allington fulfilled the role of either the CEO of PlasTech Innovations or a loyal employee of PlasTech Innovations. In condition 1 to 3, George was seen fulfilling the company CEO role. Conditions 4 to 6 presented George as adopting a company employee role. Each condition tested whether George as employee was seen as more credible than George in his CEO role. In the biography provided during the experiment, George Allington was depicted as a kind, happy and loyal person. Also, the text set out that George is a 51 year old family-man who loves his job and his position within PlasTech Innovations. Together with his wife Ashley he has two children, Mae and Jackson, with whom he likes to spend his spare time with. Finally, the text describes that the family home is located in Saginaw, which is located approximately 20 km from the PlasTech Innovations headquarters. George Allington was portrayed in a positive way in order to create a sense of empathy amongst the participants of the online experiment.

The crisis description incorporated in the experiment came in form of a fictitious article published by The New York Times. As The New York Times is commonly perceived to be a trustworthy newspaper, the content of the fictitious news article would most likely have been taken seriously by participants (Yale.com, 2018). The article started out by explaining the fact that fish and migratory birds had been found dead on the riverbed of the Shiawassee Refuge in Michigan. Air- and water samples that were taken from the scene proved that a high concentration of chemicals was found in the water of the Shiawassee river. The same

chemicals were found in the intestines of the birds and fish during disectomy. Blamed for this unfortunate event was oil and chemical company 'PlasTech Innovations', who deliberately would have dumped chemicals into the river. As they produce the same kind of chemicals in their factories and are located on the riverbed of the Shiawassee river, the company came under suspicion. The allegations became more severe when people reported to feel sick after swimming in the river. Reported victims showed signs of migraine, severe stomach aches and even dyspnea after they had swum in the river over the course of the past three months (Appendix B, p. 66). Of course, these severe accusations made towards PlasTech Innovations called for a strong and clear response.

In order to provide an answer to these severe allegations, the experiment incorporated stimuli that tested the influence of the "response strategy" and the "message source", on the "post-crisis reputation" and "behavior intention" of participants. Participants were randomly assigned to one out of six different conditions (Appendix B, p. 59-64). For each condition, one out of six fictitious Facebook pages were shown to the participant. The stimuli presented either the CEO as the message source of the company, or the employee as the message source of the company. Condition one up till three presented a personal Facebook page of a corporate CEO named George Allington. Condition four up till six presented a personal Facebook page of a corporate employee. The employee also carried the name George Allington and worked for the fictitious company called "PlasTech Innovations". It was made sure that the lay-out of the Facebook pages were presented in exactly the same manner. The profile picture that was used for creating the fictitious Facebook pages showed a man, George Allington, as a professional and kind looking person. The only thing that diverged was the response message, as well as the source of the response that differed per condition.

Since the message source stands central in this study, it was very important to be able to compare between the CEO and the company employee. The corporate CEO's private Facebook page, as well as the employee's Facebook page, featured the three SCCT responding strategies; denial, diminish and apology. The first condition presented the CEO combined with a denial response. Here, CEO George Allington denied the allegations that were made towards PlasTech Innovations. George stated that allegations were ungrounded as PlasTech Innovations had always followed a strict chemical cleaning policy. This policy entailed taking air and water samples on a monthly basis around the PlasTech Innovations factory. These tests were conducted by private bodies to secure the independence of the results. As no chemicals were found during the previously executed tests, George Allington claims that PlasTech Innovations could not have caused the death of the animals living in the Shiawassee refuge. Lastly, George

asked The Times, as well as the US Fish and Wildlife service, to withdraw their accusations and apologize for harming the reputation of the company. The same approach was taken for the fourth condition. The only difference was that here, George Allington adopted the role of the corporate employee.

For the second condition a diminish response strategy was inhabited in the stimulus. Here, the CEO stated that the crisis was caused by unforeseen circumstances and that the cause of the crisis was never intentional. First of all, George emphasized that he felt shocked after the allegations. He then stated that the accusations led to internal inspections within PlasTech Innovations. After stating that PlasTech Innovations had always followed a strict chemical cleaning policy, George Allington reported that a leakage was found during an inspection in one of the chemical storing containers. Moreover, George Allington emphasized the fact that PlasTech Innovations never intentionally risked to harm people and the nature and that he regrets the incident greatly. Furthermore, the text explained that PlasTech would set up an investigation in order to find out how the leakage could have happened and how it could be prevented in the future. The same response message was incorporated in the fifth condition, which featured the employee as the corporate message source.

For the third (CEO) and sixth (employee) condition, an apology response was implemented in the stimuli. Firstly, George Allington emphasized that he was shocked after witnessing the allegations. He then stated that he, in name of PlasTech Innovations, takes full responsibility for the chemicals ending up in the Shiawassee river. Furthermore, he stated that such a chemical spilling should never have happened as they endangered not only protected animals, but also citizens of Michigan. Finally, PlasTech Innovations took full responsibility for the devastating outcome of their actions and asked for the forgiveness of stakeholders.

## 4. Results

### 4.1 Manipulation check and population demographics

Out of all respondents (N=438), 144 were filtered out. This action was taken as these participants failed to comply to the inclusion criteria or had not finished the survey. Therefore, the final dataset that was used was compiled out of N=294 participants. Out of these N=294 participants, 100% completed the experiment successfully. When looking into the demographics of these participants, it could be seen that 135 participants were male (45,9%) and 159 participants were female (54,1%) with M=1.54 and SD=.49. This indicates that the female gender was represented more frequent in the dataset. The dataset contained 130 respondents whose highest obtained degree was a Bachelor's degree (44,2%). This means that the item Bachelor's degree had the highest frequency. The overall highest obtained degree was represented by a mean of M=3.60 and a standard deviation of SD=1.30. This again showed that a Bachelor degree was the most frequent highest obtained degree amongst the sample. Finally, the age of the participants ranged from 19 to 80 with a mean of M=36.7 and a standard deviation of SD=13.35.

In order to test whether the dependent variables were successfully manipulated in the experiment, two manipulation checks were conducted. First, two dummy variables were created; one for the message source and one for the response strategy. By means of a crosstabulation, the manipulation effect of the message source variable was measured. The Pearson Chi-square test value in the results table showed a significant effect ( $\chi^2 (2, N = 294) = 77.18, p = .000$ ). This means that it can be stated by 95% certainty that the message source variable was successfully manipulated. The second manipulation check that was conducted explored the manipulation effect of the three different response strategies. Looking at the Pearson Chi-square value, which could be found in the newly conducted crosstabulation, we can see that the manipulation proved to be significant ( $\chi^2 (6, N = 294) = 189.56, p=.000$ ). This means that it can be stated by 95% certainty that the response strategy variable was successfully manipulated. As both variables showed significant numbers, it can be stated that the stimuli were manipulated successfully.

Variable	Mean	SD
Age	36.7	13.35
Gender	1.45	.49
Highest obtained degree	3.60	1.30

Table 4.1: Statistical variable information (Mean and Standard deviation)

#### 4.2 Post crisis reputation - ANOVA

In all four hypotheses, the response strategy as well as the message source fulfill the role of being the fixed factors. Each of the fixed factors have a number of different levels that correspond to the different conditions. As explained before, the fixed factor 'message source' exists out of a level that represents the CEO and a level that represents the employee. For the fixed factor 'response strategy' the levels are deny, diminish and apology. Each and every variable which was measured in an ANOVA, was tested after participants witnessed the stimuli. Therefore, participants were influenced by the stimuli.

Based on Levene's test, which provided a significant number of  $p = .024$ , no equal variance was assumed between the fixed factors and the continuous variable 'post-crisis reputation'. The significant p-value could be the result of a small group sample size. As Pallant (2014) states, a small sample size could influence the Levene's test value. This however should not certainly have to mean that no equal variance is assumed.

Based on these presumptions a one-way ANOVA was conducted. This was done in order to compare the variability in scores between the two groups with the variability within the previously called out groups (Pallant, 2014). Looking into the Test of Between-Subjects results provided in the output, a non-significant effect was found between 'message source' and 'post-crisis reputation' ( $F(1,288) = 1.3$ ,  $p = .246$ ,  $\eta^2 = .005$ ) as well as between 'response strategy' and 'post-crisis reputation' ( $F(2,288) = 1.9$ ,  $p = .154$ ,  $\eta^2 = .013$ ). This indicates that the means of both fixed factors do not differ significantly. When looking at the partial Eta squared value for the factor 'message source' a very small effect size was found  $\eta^2 = .005$ . This indicates that the mean of the 'message source' factor levels differed very little from one another. For the 'response strategy' factor levels, a slightly larger effect size was found as the partial Eta squared number was represented by a value of  $\eta^2 = .013$ . This indicates that the mean of the 'response strategy' factor levels differed little from each other. The interaction effect of the two fixed factors proved to be non-significant too, as a p-value of  $p = .943$  was found with a partial Eta squared that was almost equal to zero ( $F(2,288) = .06$ ,  $p = .943$ ,  $\eta^2 = .000$ ).

However, although the means of both fixed factors did not differ significantly from each other, there were in fact differences in mean values detected. When looking at the CEO factor level, a clear difference was found between the diminish factor level ( $M = 3.44$ ,  $SD = 1.44$ ) and the two other factor levels of deny ( $M = 3.13$ ,  $SD = 1.70$ ) and apology ( $M = 3.14$ ,  $SD = 1.75$ ). Therefore, we may conclude that participants who were attributed to the CEO\*diminish condition, had a more positive perception of the company's reputation after the crisis than when attributed to the CEO\*deny or CEO\*apology condition. However, the

differences found were not statistically significant. When looking into the results of the employee factor level the same trend was discovered. Here, we could detect a clear statistical difference between the diminish factor ( $M = 3.31, SD = 1.44$ ) and the other two factor levels deny ( $M = 2.90, SD = 1.65$ ) and apology ( $M = 2.87, SD = 1.22$ ). What was interesting here is that both the employee\*deny condition as well as the employee\*apology condition scored statistically lower than the conditions where the CEO was used as a message source. This indicates that the sample in general was more in favour of a CEO as the message source in times of a crisis. Moreover, we can see that the diminish response strategy scored higher than the other response options in regards to the post-crisis reputation.

Message source	Response option	Mean	SD
CEO	Deny	3.13	1.70
	Diminish	3.44	1.44
	Apology	3.14	1.75
Employee	Deny	2.90	1.65
	Diminish	3.31	1.44
	Apology	2.87	1.22

Table 4.2: Means and Standard deviation of 'message source' and 'response option' on 'Post-crisis reputation'

#### 4.3 Behaviour intentions – ANOVA

Based on Levene's test, which provided a non-significant number of  $p = .205$ , an equal variance was assumed between the fixed factors and the continuous variable 'behaviour intention'. Therefore, a one-way ANOVA was conducted. When looking into the Test of Between-Subjects table provided in the output, a non-significant effect was found between 'message source' and 'behaviour intention' ( $F(1,288) = .12, p = .733, \eta^2 = .000$ ) as well as between 'response strategy' and 'behaviour intention' ( $F(2,288) = .63, p = .536, \eta^2 = .004$ ). This indicates that the means of both fixed factors did not differ significantly. When looking at the partial Eta squared value for the factor 'message source', an effect size was found which was close to zero  $\eta^2 = .000$ . This indicates that each mean of the different factor levels of 'message source' differed very little or not from one another. For the 'response strategy' factor levels, a slightly larger effect size was found, as the partial Eta squared number was represented by a value of  $\eta^2 = .004$ . However, this still indicated that the means of the factor levels of 'response strategy' differed very little from each other. The interaction effect of the two fixed factors proved to be non-significant too, as a

p-value of  $p=.752$  was found with a partial Eta squared value that was almost equal to zero ( $F(2,288) = .29$ ,  $p=.752$ ,  $\eta^2=.002$ ).

When looking at the mean differences in the descriptive statistics output, we could see that all means were skewed closely together. For the CEO factor level, the most favourable response strategy detected was the deny response ( $M = 2.71$ ,  $SD = 1.74$ ). The conditions CEO\*diminish and CEO\*apology accounted for respectively  $M = 2.58$  and  $M = 2.43$  ( $SD = 1.51$  and  $SD = 1.62$ ). For the employee conditions, we could see that the diminish response was perceived as most positive by the participants. Here, the mean  $M = 2.69$  ( $SD = 1.61$ ) was slightly higher than for the employee\*deny condition ( $M = 2.47$ ,  $SD = 1.67$ ) and the employee\*apology condition ( $M = 2.37$ ,  $SD = 1.32$ ). Comparing all means to each other showed that a deny strategy, brought by the CEO of a company, was seen as having the most positive effect on participants' behavior intentions. On the contrary, an apology strategy brought by an employee of a company in response to a crisis, resulted in the least positive outcome in regards to participants' behavior intentions.

Message source	Response option	Mean	SD
CEO	Deny	2.71	1.74
	Diminish	2.58	1.51
	Apology	2.43	1.62
Employee	Deny	2.47	1.67
	Diminish	2.69	1.61
	Apology	2.37	1.32

Table 4.3: Means and Standard deviation of 'message source' and 'response option' on 'Behaviour intentions'

#### 4.4 Regression analysis

Both the message source factor as well as the response strategy factor failed to show any significant effect on a company's post-crisis reputation as well as on participant's behavior intention. To explore whether other variables were able to predict and control the post-crisis reputation, a regression analysis was run. According to the preliminary analysis, no violation of the assumptions of multicollinearity, homoscedasticity, normality and linearity were found. As preliminary tests showed no violation of the previously named assumptions, the regression analysis was conducted. In this regression analysis, the variables shown in table 4.4 M1 were included and measured to the post-crisis reputation variable. Looking into the Model

summary, an R Square value of .734 was found. This means that the seven different variables explained 73,4% of the variance in perceived post-crisis reputation in the dataset. In order to assess the statistical significance of the regression analysis, we looked at the *p*-value in the ANOVA table. As expected by the high R Square value, the ANOVA showed a significant outcome (*p* = .000). In the final model, the following control variables were statistically significant or moderately statistically significant: Pre-crisis reputation (*beta* = .11, *p* = .001), Crisis responsibility (*beta* = -.19, *p* = .000), Message credibility (*beta* = .15, *p* = .054), Negative emotions (*beta* = .15, *p* = .000) and Message source credibility (*beta* = .46, *p* = .000).

To explore whether the demographic variables (age, gender, education) were able to predict and control the post-crisis reputation, again a regression analysis was run. According to the preliminary analysis, no violation of the assumptions of multicollinearity, homoscedasticity, normality and linearity were found. For this regression analysis, all seven variables lined out in table 4.4 M1, as well as the three demographic variables shown in M2, were compared to the post-crisis reputation variable. Looking into the Model summary, an R Square value of .741 was found. This means that the ten different variables explained 74,1% of the variance in perceived post-crisis reputation in the dataset. In order to assess the statistical significance of the regression analysis, we looked at the *p*-value in the ANOVA table. As expected by the high R Square value, the ANOVA showed a significant outcome (*p* = .000). In the final model, the following control variables were statistically significant or moderately statistically significant: Highest obtained degree (*beta* = .06, *p* = .057), Pre-crisis reputation (*beta* = .11, *p* = .001), Crisis responsibility (*beta* = -.20, *p* = .000), Message credibility (*beta* = .15, *p* = .046), Negative emotions (*beta* = .14, *p* = .000) and Message source credibility (*beta* = .45, *p* = .000). As these variables showed a significant relation in regards to the dependent variable 'post-crisis reputation', the variables were measured in a one-way ANOVA in order to explore the effect between them and the fixed factors. The variable of pre-crisis reputation was excluded from the ANOVA test since the pre-crisis reputation could not have been influenced by the post-crisis response.

M1				M2		
IV	Beta	Sig.	VIF	Beta	Sig.	VIF
<b>Message source</b>	-.17	.075	1.01	-.06	.052	1.02
<b>Response strategy</b>	-.05	.441	1.13	-.03	.384	1.14
<b>Pre-crisis reputation</b>	.11**	.001	1.14	.11**	.001	1.16
<b>Crisis responsibility</b>	-.19***	.000	1.77	-.20***	.000	1.82
<b>Message credibility</b>	.15	.054	6.01	.15*	.046	6.03
<b>Negative emotions</b>	.15***	.000	1.47	.14***	.000	1.50
<b>Message source credibility</b>	.46***	.000	6.51	.45***	.000	6.53
<b>Highest obtained degree</b>				.06	.057	1.03
<b>Gender</b>				-.04	.159	1.02
<b>Age</b>				.04	.253	1.07
<b>F-value and R-squared per model</b>						
<b>F-value</b>	<b>112.66 (.000)</b>			<b>80.85 (.000)</b>		
<b>R-squared</b>	<b>.734</b>			<b>.741</b>		

Significance: \*\*\* $p<.001$ , \*\* $p<.01$ , \* $p<.05$

Table 4.4: Regression analysis and preliminary tests

#### 4.5 Additional results: Crisis responsibility – ANOVA

The conducted regression analysis showed a significant relationship between five out of seven of the test variables and the continuous variable ‘crisis responsibility’. Therefore, to test the relation between each of these five variables and the fixed factors ‘message source’ and ‘response strategy’, several ANOVA’s were conducted. Based on Levene’s test, which provided a non-significant number of  $p = .618$ , an equal variance was assumed between ‘Crisis responsibility’ and ‘Post-crisis reputation’. Therefore, the one-way ANOVA measured the relationship between the fixed factors and continuous test variable ‘crisis responsibility’.

Looking into the Test of Between-Subjects table provided in the output, a non-significant effect was found between ‘message source’ and ‘crisis responsibility’

(  $F(1,288) = 1.65$ ,  $p=.200$ ,  $\eta^2=.006$  ). Also, the interaction effect of the two fixed factors did not show a significant relationship ( $F(2,288) = .33$ ,  $p=.717$   $\eta^2=.002$  ). However, the effect between ‘response strategy’ and ‘crisis responsibility’ did show a significant relationship

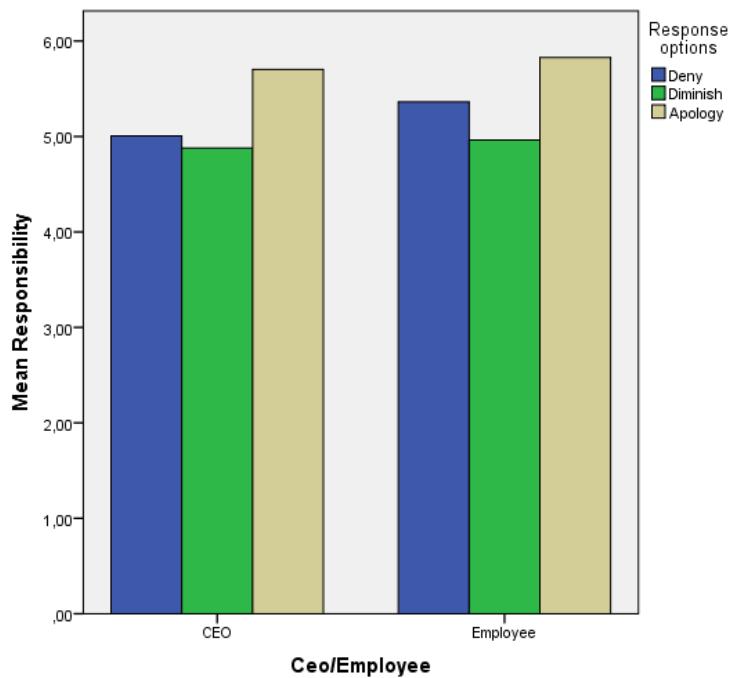
(  $F(2,288) = 11.75$ ,  $p=.000$ ,  $\eta^2=.075$  ). This indicates that the means of fixed factor ‘response strategy’ differed significantly. When looking at the partial Eta squared value for the factor ‘response strategy’, an effect size was found that was moderate  $\eta^2=.075$ . This means that the response strategy did in fact influence how participants perceived the company’s responsibility

for the crisis.

When examining the Descriptive Statistics table, a clear distinction could be seen between the different response strategy levels. For the CEO factor level, an apology response strategy was seen as having the most positive effect on participants' crisis responsibility attribution ( $M = 5.70$ ,  $SD = 1.24$ ). The least favourable response strategy outed by the CEO of a company was seen to be a diminish response ( $M = 4.88$ ,  $SD = 1.40$ ). Adopting a deny strategy resulted in a mean of  $M = 5.01$ , with a standard deviation of  $SD = 1.26$ . When looking into the condition where the employee adopted the role of being the message source, the same response strategy deemed to have the most positive effect on participants' crisis responsibility attribution, namely the apology strategy ( $M = 5.83$ ,  $SD = 1.11$ ). Again, the diminish response strategy seemed to have the least positive effect on participants' crisis responsibility attribution ( $M = 4.96$ ,  $SD = 1.22$ ). Adopting a deny strategy resulted in a mean of  $M = 5.36$  and a standard deviation of  $SD = 1.29$ . When looking at the overall results, it could be concluded that pursuing an apology strategy which is conveyed to the public by a company employee, has the most positive effect on the crisis responsibility attribution of the public.

Message source	Response option	Mean	SD
CEO	Deny	5.01	1.26
	Diminish	4.88	1.40
	Apology	5.70	1.24
Employee	Deny	5.36	1.29
	Diminish	4.69	1.22
	Apology	5.83	1.11

Table 4.5.1: Means and Standard deviation of 'message source' and 'response option' on 'Crisis responsibility'



Graph 4.5.2: Mean differences of the crisis responsibility variable

#### 4.6 Additional results: Message credibility – ANOVA

The second variable that was tested in a one-way ANOVA was ‘message credibility’. The ‘message credibility’ inhabited questions that revolved around how participants perceived the credibility of the crisis response message. As expected, the regression analysis showed that the level of message credibility significantly influenced the post-crisis reputation of a company. Based on Levene’s test, which provided a non-significant number of  $p = .776$ , an equal variance was assumed and therefore an ANOVA was conducted. When looking at the Test of between-subjects table, a non-significant relation was found between message source and message credibility ( $F(1,288) = .03, p=.911, \eta^2=.000$ ). The high p-value indicates that, whether the CEO or the employee functioned as the message source, it did not influence participants’ message credibility perceptions. Again, the interaction effect of the fixed factors failed to show any significant relationship ( $F(2,288) = .40, p=.672, \eta^2=.003$ ). However, a significant relationship was found between response strategy and participants’ message credibility perception ( $F(2,288) = 3.61, p=.028, \eta^2=.024$ ). Here, the Eta squared value showed a small variance in the means of the factor levels. Overall, this significant relationship means that the way of responding to a particular crisis influenced whether participants perceived the message as credible.

When looking at the Descriptive statistics table, a clear distinction could be seen between the different response strategy levels. For the CEO factor level, a diminish response strategy was seen to have the most positive effect on participants’ message credibility

perception ( $M = 3.37$ ,  $SD = 1.53$ ). The apology response, as seen in the table, provided a slightly lower mean. This indicates that also the apology response would have had a moderate effect on how participants perceived the credibility of the response of a company ( $M = 3.27$ ,  $SD = 1.51$ ). The least favourable response strategy outed by the CEO of a company was seen to be a deny response ( $M = 2.97$ ,  $SD = 1.67$ ). When looking into the condition where the employee adopted the role of being the message source, the same response strategy deemed to have the most positive effect on participants' message credibility perception, namely the diminish response strategy ( $M = 3.46$ ,  $SD = 1.53$ ). Again, the deny response strategy seemed to have the least positive effect on participants' message credibility perception ( $M = 2.76$ ,  $SD = 1.68$ ). Adopting an apology strategy resulted in a mean of  $M = 3.45$  and a standard deviation of  $SD = 1.52$ . Just like with the CEO condition, the apology condition was almost perceived as credible as a diminish response. When looking at the overall results, it could be concluded that pursuing a diminish or apology strategy, which is conveyed to the public by a company employee, has the most positive effect on the message credibility perception amongst participants.

Message source	Response option	Mean	SD
CEO	Deny	2.97	1.67
	Diminish	3.37	1.53
	Apology	3.27	1.51
Employee	Deny	2.76	1.68
	Diminish	3.46	1.53
	Apology	3.45	1.52

Table 4.6.1: Means and Standard deviation of 'message source' and 'response option' on 'Message credibility'

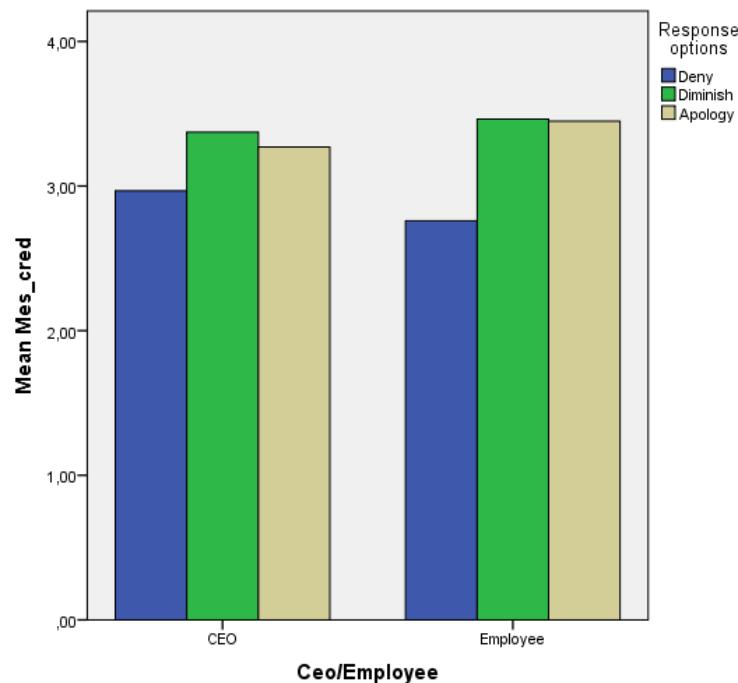


Table 4.6.2: Mean differences of the message credibility perception variable

#### 4.7 Additional results: Negative emotions – ANOVA

Based on Levene's test, which provided a non-significant number of  $p = .512$ , an equal variance was assumed. Therefore, the third variable tested in a one-way ANOVA was the continuous variable 'negative emotions'. Looking into the Test of Between-Subjects table, which was provided in the output, a non-significant effect was found between 'message source' and 'negative emotions' ( $F(1,288) = .03, p=.859, \eta^2=.000$ ) as well as between 'response strategy' and 'negative emotions' ( $F(2,288) = .77, p=.464, \eta^2=.005$ ). This indicates that the means of both fixed factors did not differ significantly. When looking at the partial Eta squared value for the factor 'message source', an effect size was found that was almost equal to zero  $\eta^2=.000$ . This indicates that the means of the factor levels of 'message source' differed not, to very little, from one another. For the 'response strategy' factor levels, a slightly larger effect size was found, as the partial Eta squared number was represented by a value of  $\eta^2=.005$ . However, this still indicates that the means of the factor levels of 'response strategy' differed very little from each other. The interaction effect of the two fixed factors proved to be non-significant too, as a p-value of  $p=.582$  was found with a partial Eta squared value that was almost equal to zero ( $F(2,288) = .54, p=.582, \eta^2=.004$ ).

During the examining of the Descriptive statistics table, it became clear that the means of all conditions were closely skewed together. For the CEO condition, it emerged that relatively all response strategies resulted in almost the same mean; deny equals  $M = 3.01$  and  $SD = 1.66$ , diminish equals  $M = 2.99$  and  $SD = 1.49$ , and apology equals  $M = 2.92$  and

$SD = 1.70$ . For the employee conditions, all means were more apart. Here, the diminish response strategy came up as most favourable. This means that this kind of response strategy resulted in the least negative emotions amongst the sample of participants ( $M = 3.22, SD = 1.45$ ). The response strategy that generated the least positive emotions amongst the sample of participants was apologizing for the crisis ( $M = 2.77, SD = 1.34$ ). Adopting a deny response strategy resulted in a mean that was very close to that one of the apologizing strategy ( $M = 2.84, SD = 1.42$ ). All in all, it could be argued that the response strategy as well as the message source did not influence participants' emotions either positively or negatively.

Message source	Response option	Mean	SD
CEO	Deny	3.01	1.66
	Diminish	2.99	1.49
	Apology	2.92	1.70
Employee	Deny	2.84	1.42
	Diminish	3.22	1.45
	Apology	2.77	1.34

Table 4.7: Means and Standard deviation of 'message source' and 'response option' on 'Negative emotions'

#### 4.8 Additional results: Message source credibility – ANOVA

The fourth variable that showed a significant relationship in the regression analysis was the variable 'message source credibility'. The message source credibility variable measured to what extent participants perceived the source of the message to be credible. Based on Levene's test, which provided a non-significant number of  $p = .608$ , an equal variance was assumed. As with the other variables, the variable 'message source credibility' was measured in an ANOVA, based on Levene's test, with the two fixed factors. When looking at the Test of between-subjects table, no significant relationship was found between the fixed factor 'message source' and 'message source credibility' ( $F(1,288) = .01, p=.920, \eta^2=.000$ ). Also the fixed factor response strategy did not show any significant relationship with the variable 'message source credibility' ( $F(2,288) = 2.17, p=.12, \eta^2=.015$ ). When looking at the interaction effect of both fixed factors, again no significant relationship was found ( $F(2,288) = .35, p=.703, \eta^2=.002$ ). As could be seen, the partial Eta squared value of the fixed factor response strategy was the only factor that showed a small effect. Therefore, it could be argued that neither the message source, thus CEO or employee, nor the response strategy, deny, diminish and

apology, influenced participants' perception of whether they thought the message source was credible.

Again, all means that could be found in the Descriptive statistics table, presented means that were skewed close together. For the CEO condition, the diminish response presented the highest mean value ( $M = 3.46, SD = 1.51$ ), closely followed by the apology response ( $M = 3.45, SD = 1.66$ ) and the deny response ( $M = 3.16, SD = 1.80$ ). The same trend was found for the employee condition as the diminish response presented the highest mean value ( $M = 3.66, SD = 1.61$ ), followed by the response strategy apology ( $M = 3.37, SD = 1.57$ ) and deny ( $M = 2.98, SD = 1.79$ ). This means that all in all, in order to obtain the highest level of message source credibility, the employee should be exploited as the message source whilst taking on a diminish strategy. However, since the means of the conditions differed very little in value, and no significant relationship was found, all conditions had about the same influence on message source credibility perception.

Message source	Response option	Mean	SD
CEO	Deny	3.16	1.80
	Diminish	3.46	1.51
	Apology	3.45	1.66
Employee	Deny	2.98	1.79
	Diminish	3.66	1.61
	Apology	3.37	1.57

Table 4.8: Means and Standard deviation of 'message source' and 'response option' on 'Message source credibility'

#### 4.9 Additional results: Highest obtained degree – ANOVA

The final variable that showed a weakly significant relationship in the regression analysis was the demographic variable 'Highest obtained degree'. The 'Highest obtained degree' variable measured what the highest obtained and finished degree was of the participants. Based on Levene's test, which provided a non-significant number of  $p = .809$ , an equal variance was assumed. As with the other variables, the variable 'Highest obtained degree' was measured in an ANOVA, based on Levene's test, with the two fixed factors. When looking at the Test of between-subjects table, no significant relationship was found between the fixed factor 'message source' and 'Highest obtained degree' ( $F(1,288) = .09, p = .767, \eta^2 = .000$ ). Also the fixed factor response strategy did not show any significant relationship with the variable

'Highest obtained degree' ( $F(2,288) = .29, p = .752, \eta^2 = .002$ ). When looking at the interaction effect of both fixed factors, again no significant relationship was found ( $F(2,288) = 2.26, p = .106, \eta^2 = .015$ ). As could be seen, the partial Eta squared value of the fixed factors combined was the only factor that showed a small effect. Therefore, it could be argued that the level of education does not significantly influence how people perceive the message source, thus CEO or employee, nor the response strategy, deny, diminish and apology.

Again, all means that could be found in the Descriptive statistics table, presented means that were skewed close together. For the CEO condition, the diminish response presented the highest mean value ( $M = 3.79, SD = 1.27$ ), closely followed by the apology response ( $M = 3.66, SD = 1.22$ ) and the deny response ( $M = 3.30, SD = 1.33$ ). For the employee conditions, the deny response showed the highest mean value ( $M = 3.76, SD = 1.26$ ), followed by the response strategy apology ( $M = 3.67, SD = 1.37$ ) and diminish ( $M = 3.45, SD = 1.31$ ). All in all, the level of highest obtained degree does not significantly control the fixed factors 'message source' and 'response strategy'. This means that the level of education does not significantly influence the message source and response strategy perceptions amongst participants in the sample.

Message source	Response option	Mean	SD
CEO	Deny	3.30	1.33
	Diminish	3.79	1.27
	Apology	3.66	1.22
Employee	Deny	3.76	1.26
	Diminish	3.45	1.31
	Apology	3.67	1.37

Table 4.9: Means and Standard deviation of 'message source' and 'response option' on 'Highest obtained degree'

#### 4.10 The hypotheses

When looking at the overall results that the one-way ANOVA presented, different outcomes could be found. The expectation that the fixed factors would significantly influence the post-crisis reputation as well as the behavior intention was rejected. This was done as  $p$ -values above .05 were found. What emerged out of the Descriptive statistics table is that in both ANOVA's, adopting the CEO as a message source led to having the most positive effect on participants' post crisis reputation perception and behavior intention.

However, the remaining test variables that showed a relation with post-crisis reputation during the regression analysis posed a somewhat different outcome. In all four ANOVA's that were conducted, the employee was seen to be the most effective message source. When testing the effect of the fixed factors on both 'crisis responsibility' and 'message credibility', a significant relationship was found with fixed factor 'response strategy'. Therefore, we may assume that the level of message source, in this case an apology strategy, does have the most positive statistically significant effect on participants' perception of crisis responsibility and message credibility.

The last two ANOVA's of model 1 that were conducted measured 'negative emotions' and 'message source credibility'. Here, no significant values were found between the fixed factors and the test variables. What did emerge though is that again, the employee turned out to be the message source that was rated most positively when comparing means. Although, here, the diminish response strategy was seen to be most effective when it came to influencing participants' emotions and credibility perceptions of the message source.

As to the demographic variable 'highest obtained degree' that was tested in model 2 was also measured in an ANOVA. Here, no significant values were found between the fixed factors and the test variable. What did emerge though, is that the CEO turned out to be the message source that was rated most positively when comparing means. Still, the mean was very close to that of the employee. Here, the diminish response strategy was seen to be most effective.

However, what does this exactly mean for the hypotheses stated in the theoretical framework? For hypothesis 1, it was argued that an apology response would have the most favourable effect on the perceived post-crisis reputation as well as on the public's behavior intentions. As the ANOVA's showed no significant relationship between the fixed factors and the test variables, we may assume that the means of all conditions were relatively the same. This means that, in this sample, the message source as well as the response strategy did not significantly influence the post-crisis reputation perceptions as well as the public's behavior intentions. Therefore, hypothesis 1 had to be rejected.

For hypothesis 2, it was argued that employees are seen by the public as a more credible message source than the CEO of a company in a preventable crisis. When looking at the overall results, we could see that in both 'crisis responsibility' and 'message credibility' a significant relation was found between the response strategy. Here, in both cases the employee turned out to be seen as most reliable when adopting an apology strategy. Also, for 'message source credibility' and 'negative emotions' the employee was seen to be having the

highest mean which indicates that the participants were more in favour of the employee as a message source than as a CEO as message source. Taking this into account, hypothesis 2 was accepted.

## 5. Discussion and Conclusion

### 5.1 Main findings

This study was conducted in order to answer the following research question: *How do a message source(CEO / employee) and response strategy (deny / diminish / apology) affect post-crisis reputation and the behaviour intention among the public of a preventable crisis?* Four hypotheses were established based on academic literature to answer the research question. These hypotheses were tested in an online experiment which was conducted via the online survey tool MTurk. Here,  $N = 438$  respondents were collected in a timeframe of ten consecutive days.  $N = 294$  valid cases remained after excluding participants that did not fit the inclusion criteria set for the experiment. The experiment focused on a fictitious crisis situation. The crisis revolved around chemical company PlasTech Innovations who allegedly would have spilled chemicals in the Shiawassee river, causing hundreds of birds and fish to die in the Shiawassee refuge. Participants were randomly assigned to one of the six research conditions. Each condition represented one of the previously treated SCCT response strategies. Moreover, each condition presented fictitious character George Allington who impersonated the role of a corporate employee or the CEO of PlasTech Innovations.

Based on the literature, a relation was expected between adopting an apology response and the participant's behaviour intentions as well as the perceived post-crisis reputation ( $H1a$  and  $H1b$ ). This study proved that in the dataset no such relation was found. Here, adopting a diminish response resulted in the most positive post-crisis reputation perceptions. As the fictitious crisis can be categorized in Coombs's (2006) preventable cluster of SCCT, the expected preferred response strategy would have been apology. However, we might elucidate this finding by the application of SCCT on Weiner's (1972) Attribution theory defined in Claeys et al. (2010). As Attribution theory sets out, the locus of control a person possesses either attributes blame to internal or external causes. According to Claeys et al. (2010) this is related to people's preference on crisis response strategies. Where an internal locus person would prefer a rebuild strategy, an external locus person would prefer a deny strategy. The diminish strategy would then be equally preferred by both parties which might certify the previously explained findings. Still, as no significant difference was found between the response strategies used in the experiment, we cannot state with full certainty that the diminish strategy is the preferred response in the sample.

Another relation was expected based on existing literature on the topic of crisis communication. In literature a trend was observed indicating that employees were seen to be as a more credible message source by the public than when the CEO was used as the

message source. Therefore, using the employee as the message source in times of a corporate crisis would have the most positive effect on participant's behaviour intentions and post-crisis reputation perceptions (*H2a* and *H2b*). Yet, this study proved that in the dataset used no such relation was found. Here, the CEO as a message source was seen to be rated more positively based on both the post-crisis perception as well as the behaviour intentions of the participants. Again, these findings can be elucidated by two different theories. According to Reidenbach and Pitt (1986), people identify themselves with people that are similar to themselves. As the study sample consisted of a large amount of highly educated participants (59.8% obtained a University Bachelor degree or higher), these people may have identified themselves more with the CEO of the company. Therefore, they would have perceived the CEO to be more credible and believable than a regular employee.

The second explanation for the findings that countered beliefs set out in literature could be the deep pockets effect by Vidmar (1993). Regardless of what happened, Vidmar (1993) states that the CEO of a company will in most cases be held accountable for causing the crisis. This theory is backed up by Edelman's (2018) Eurobarometer results. Besides the fact that CEO credibility is on the rise, people seem to have no respect for companies or CEO's who remain silent in times of a crisis. This shows the (increasing) preference of the CEO as the message source in times of a crisis would be a logical test result. However, based on the insignificant relation between the message source and the participants' behaviour intention, as well as the post-crisis reputation perceptions, we cannot state with certainty that the CEO is perceived as the most favourable message source in times of a crisis. All in all, the insignificant findings could indicate that SCCT is indeed not applicable to the paracrisis. If this perception is valid, future research should seek to establish a theory that is applicable to the paracrisis.

As the main tests failed to show any significant relationship, other tests were run in order to explore whether a part of the additional variables were able to control for the post-crisis reputation perceptions. Both 'Crisis responsibility' as well as 'Message credibility' showed significant relationships in regards to the fixed factor 'Response strategy'. Looking at the results of the variable 'Crisis responsibility', the preferred response strategy was seen to be the apology strategy. This means that the crisis responsibility perceptions were deemed most positive when an apology response was used. Therefore, in this case, SCCT would be applicable. For the second variable 'Message credibility' the same trend was found. Here, again a significant relationship was found between the variable and fixed factor 'Response strategy'. The participants showed a preference for either an apology response or a diminish response as both strategies had very similar scores. Again, SCCT's predictions would be applicable to the

case. However, the preference for a diminish response could, again, be elucidated by the personal locus preference theory of Claeys et al. (2010). These results set out that a company facing a preventable (para)crisis would suffer least damage if an apology or diminish strategy would be adopted.

In conclusion to the findings that emerged from this experiment, it may be argued that the message source and response strategy do not significantly influence the post-crisis reputation and behaviour intention in this sample. It was found that preliminary theories like SCCT do not apply to the paracrisis. As SCCT was based on offline corporate crises, and established a decade ago, its rules do not apply for online visible crises. As prevention is better than cure, a new response theory should be established based on the premises and characteristics of the paracrisis.

## **5.2 Theoretical implications**

This study contributed to existing academic research in several ways. Firstly, the current study added onto existing research by incorporating an internal comparison between two message sources. As explained before, these two messages sources were the employee and the CEO of a company. Previous research mainly focused on exploring the difference between the CEO of a company and an external body (Roh, 2017). By incorporating an internal comparison between two message sources, conclusions can be drawn on who to deploy as the message source in times of a crisis. This study found that in general, the CEO is seen as more credible. Therefore, it would be wise to use the voice of the CEO in times of a crisis in order to minimize reputational damage.

Secondly, this study discovered a small effect of the level of education on the perception of the post-crisis reputation. As a mild significant relation was found between the variable “Highest obtained degree” and “Post-crisis” reputation, we might state that the level of education may influence how people perceive the corporate reputation after a crisis. As the level of education has never been considered before as a controlling factor in controlling a paracrisis, it adds on to existing literature. However, more research should be done on the expected relationship.

Thirdly, the literature showed a contradiction of academics who argued that either the CEO or the employee should be perceived as the most credible message source. Where Vidmar (1993) believes that the CEO is seen as the most credible message source, Helm (2011, p. 658) states that “the greatest reputation leverage can be achieved through employees”. This study provided an answer to the problem of whom people perceive as most credible. Based on the

sample we might state that the CEO is seen to have the most positive effect on post-crisis reputation perceptions and behavior intentions. However, we should take into account that no significant difference was found between the different response options. These inferences were made based on the mean values. According to Edelman's Eurobarometer (2018) this outcome was expected. Edelman (2018) showed in its latest report that CEO credibility is on the rise. Therefore, the finding that the CEO is perceived as most credible is not very peculiar. In conclusion, this study verifies the trend that Edelman (2018) presented in its Eurobarometer.

Lastly, this study contributes to existing literature by giving clearance on whether SCCT response strategies are applicable to the paracrisis. Previously, limited research was dedicated to the paracrisis and how a company should respond to one. As a paracrisis is seen as a reputational threat that quickly can turn into a full-blown crisis, it was beneficial to figure out how to respond to such a paracrisis. Coombs (2006) established a model called SCCT which distinguished between crisis types and response strategies. This theory, however, was built on traditional crises that were not present online. As the paracrisis is visible online and spreads fast, it was important to find out whether the rules of SCCT would apply to the paracrisis (Coombs & Holladay, 2012). This study proved that SCCT response strategies are likely not applicable to the paracrisis. Therefore, future research should seek to develop a theory that is customized to the characteristics of the paracrisis.

### **5.3 Managerial implications**

Out of this study, some important managerial implications emerged that need to be taken into account. Firstly, as discussed before, previous literature on the topic of crisis communication often pled for adopting an employee as the message source in times of a crisis. The employee would have a reducing effect on the blame attributions made by stakeholders. Moreover, the employee was seen to be increasingly credible and believable according to the Eurobarometer (Edelman, 2018). There however was a trend detected in which the CEO was seen to gain in credibility compared to previous years. However, despite the trend, employees still score higher on perceived credibility than CEO's do. Therefore, a corporation should wisely decide on who to deploy as their message source. When a choice is made to galvanize an employee as the message source in times of a crisis, his or her voice should always be accompanied by the voice of the CEO. As can be concluded from the results of this study, the sample preferred a CEO to be the message source in times of a crisis. Moreover, Edelman's Eurobarometer (2018) proved that companies were rated more negatively when the CEO would not communicate on

important matters. Therefore, this study advises managers to galvanize employees and add on to the corporate response strategy by also deploying the CEO as the message source. By combining the advantages of both the CEO and the employee, the company receives the best of both worlds.

Secondly, it is advisable for managers to examine the customer base in detail. As emerged from this study, the educational level of stakeholders is seen to influence the corporate message source perceptions. When the customer base is seen to have a relatively lower educational level, the employee should be deployed as the main message source in times of a crisis. When a customer base is represented by either mainly highly educated people, or a mix of both, it is wise to use the 'best of both worlds' strategy explained in the previous paragraph (Reidenbach & Pitt, 1986 ; Edelman, 2018 ; Helm, 2011). Here, the crisis response could be customized to the client base. This would likely generate more positive attitudes towards the company which in return would decrease corporate reputational loss.

Thirdly, managers should invest in online communication. As the paracrisis is spread online, it would be beneficial for managers to respond to it via the same online platform. Here, a dialogic loop can be established with stakeholders. According to Yang, Kang and Johnson (2010) such a dialogic loop would inflict a feeling of trust and engagement amongst the stakeholders. The employee is not perceived as an 'onlooker', instead he is seen as more 'accessible' actor. Therefore, it would be wise to galvanize the employee as the message source to communicate on a more personal level. This however does not mean that for the overall crisis response the CEO should not also be embedded in the crisis solving strategy.

Fourthly, adding onto the previous implications, we would like to propose that corporations should install pre-set crisis responses based on the different customer types. As the paracrisis spreads very fast and is increasingly visible online, it would be beneficial for a company to have pre-set crisis responses ready to minimize reputational damage (van Zoonen & van der Meer, 2015). When different stakeholder types are identified, personalized pre-set responses could be established. These pre-set responses could be circularized widely and fast, with minimal effort. Moreover, as the pre-set responses are customized to the different stakeholder groups, the responses will likely have a better effect on the post-crisis reputation perceptions and behavior intentions.

Lastly, the study presented some additional results. It emerged that for the variables 'Crisis responsibility' and 'Message credibility' significant relationships were found. In both cases, the response strategies seemed to differ significantly. This means that for both variables, the apology response proved to provide the most positive results. Therefore, in

order to minimize crisis responsibility attributions, companies should adopt an apology response. Moreover, when an apology strategy was used, the message credibility was rated most positive compared to the diminish and deny strategy. Therefore, in order to minimize crisis responsibility attributions, and to increase message credibility perceptions, the company should incorporate an apology strategy into their crisis response.

#### **5.4 Limitations and implications for future research**

When evaluating this research, several limitations and implications for future research were identified. One of the limitations found after reflecting on the study was the sample size. Even though this study met the minimum amount of participants per condition, the study and its results would thrive by using a larger sample. A larger sample would increase the validity of the conclusions and assumptions made during this study. Therefore, future research should execute this study on a larger scale, with more participants.

Another limitation that emerged from this study was the use of sampling tool MTurk. Overall, MTurk is a quite reliable sampling tool. By asking for a validation code at the end of the experiment, or incorporating test questions in your experiment, you can relatively easily filter out participants who do not take the experiment seriously. Still, it is possible that such participants slip through and are included in the final sample. Moreover, MTurk is often used by older and higher educated people. Therefore, random sampling can never be fully achieved through MTurk as it does not entirely reflect the entire world population. Therefore, not everyone had the same chance of being selected for participating in this study. In the future, research should re-conduct this experiment by making sure random sampling is achieved.

Furthermore, an implication for future research would be to focus the research on studying specific stakeholder profiles and / or nationalities. By exploring trends within stakeholder groups, or within specific markets, companies could personalize and customize crisis responses. It would be wise to take into account the locus of control principle as explained by Claeys et al. (2010). Based on this, customer profiles could be identified and personalized response strategies could be incorporated into the crisis strategy model. As a more personalized crisis response can be produced, blame attributions made by stakeholders would decrease and perceptions of credibility and favourability towards the company would likely increase.

A second implication for future research we would like to propose is to re-conduct the experiment by including all (sub)response strategies set out in SCCT. It might be the case that other (sub)strategies, besides the ones used in this study, would have a significant relationship

with the post-crisis reputation perception and behaviour intentions. Moreover, by incorporating all (sub)strategies into the experiment, a better understanding of how, and if, a part of SCCT is applicable to the paracrisis. Again, this would require a larger sample in order to draw valid conclusions based on the results.

However, most importantly, future research should seek to establish a crisis response theory which is applicable to the paracrisis. As the paracrisis is a growing phenomenon, due to the increasing importance of the internet, the necessity for developing a paracrisis response strategy theory is ever growing. To fill in this gap in existing literature, future research should aim to find the characteristics of the paracrisis and develop a customized response theory accordingly.

## References

Alasuutari, P., Bickman, L., & Brannen, J. (2009). *The SAGE handbook of social research methods*. Retrieved from [https://books.google.nl/books?hl=nl&lr=&id=eTmsn2-tYtAC&oi=fnd&pg=PR5&dq=The+SAGE+handbook+of+social+research+methods&ots=u\\_U145zAlq&sig=MPseYjBVwoB7KKISPM-j\\_YyUlo#v=onepage&q=The%20SAGE%20handbook%20of%20social%20research%20methods&f=false](https://books.google.nl/books?hl=nl&lr=&id=eTmsn2-tYtAC&oi=fnd&pg=PR5&dq=The+SAGE+handbook+of+social+research+methods&ots=u_U145zAlq&sig=MPseYjBVwoB7KKISPM-j_YyUlo#v=onepage&q=The%20SAGE%20handbook%20of%20social%20research%20methods&f=false)

Arendt, C., LaFleche, M., & Limperopoulos, M. (2017). A qualitative meta-analysis of apology, image repair, and crisis communication: Implications for theory and practice. *Public Relations Review*, 43(3), 517-526.  
<http://dx.doi.org/10.1016/j.pubrev.2017.03.005>

Arpan, L. (2002). When in Rome? The Effects of Spokesperson Ethnicity on Audience Evaluation of Crisis Communication. *Journal of Business Communication*, 39(3), 314-339. doi: 10.1177/002194360203900302

Bearden, W. O., & Netemeyer, R. G. (1999). *Association for Consumer Research: Handbook of marketing scales*: SAGE Publications Ltd doi: 10.4135/9781452224923

Benoit, W. (1995). Sears' repair of its auto service image: Image restoration discourse in the corporate sector. *Communication Studies*, 46(1-2), 89-105. doi: 10.1080/10510979509368441

Benoit, W. (1997). Image repair discourse and crisis communication. *Public Relations Review*, 23(2), 177-186. [http://dx.doi.org/10.1016/s0363-8111\(97\)90023-0](http://dx.doi.org/10.1016/s0363-8111(97)90023-0)

Benoit, W. (2000). Another visit to the theory of image restoration strategies. *Communication Quarterly*, 48(1), 40-43. doi: 10.1080/01463370009385578

Claeys, A., & Cauberghe, V. (2012). Crisis response and crisis timing strategies, two sides of the same coin. *Public Relations Review*, 38(1), 83-88. doi: 10.1016/j.pubrev.2011.09.001

Claeys, A., Cauberghe, V., & Vyncke, P. (2010). Restoring reputations in times of crisis: An experimental study of the Situational Crisis Communication Theory and the moderating effects of locus of control. *Public Relations Review*, 36(3), 256-262. doi:10.1016/j.pubrev.2010.05.004

Coombs, W. (2004). Impact of Past Crises on Current Crisis Communication: Insights From Situational Crisis Communication Theory. *Journal of Business Communication*, 41(3), 265-289. doi: 10.1177/0021943604265607

Coombs, W. (2006). The Protective Powers of Crisis Response Strategies. *Journal of Promotion Management*, 12(3-4), 241-260. [http://dx.doi.org/10.1300/j057v12n03\\_13](http://dx.doi.org/10.1300/j057v12n03_13)

Coombs, W. (2007a). Attribution Theory as a guide for post-crisis communication research. *Public Relations Review*, 33(2), 135-139. doi: 10.1016/j.pubrev.2006.11.016

Coombs, W. T. (2007b). Crisis management and communications. *Institute for Public Relations*, 30, 1-17. Retrieved from [http://www.facoltasper.unimi.it/files/\\_ITA/\\_COM/Crisis\\_Management\\_and\\_Communications](http://www.facoltasper.unimi.it/files/_ITA/_COM/Crisis_Management_and_Communications)

Coombs, W. (2007c). Protecting Organization Reputations During a Crisis: The Development and Application of Situational Crisis Communication Theory. *Corporate Reputation Review*, 10(3), 163-176. doi: 10.1057/palgrave.crr.1550049

Coombs, W. (4). (2015). *Ongoing crisis communication*. Retrieved from <https://books.google.nl/books?hl=nl&lr=&id=CkkXBAAQBAJ&oi=fnd&pg=PR1&dq=On-going+crisis+communication&ots=NHwf1jhh9h&sig=ACDhsGkh8Iu600rrgcUYJhdjGY#v=onepage&q=Ongoing%20crisis%20communication&f=false>

Coombs, W., & Holladay, S. (1996). Communication and Attributions in a Crisis: An Experimental Study in Crisis Communication. *Journal of Public Relations Research*, 8(4), 279-295. doi: 10.1207/s1532754xjpr0804\_04

Coombs, W., & Holladay, S. (2009). Further explorations of post-crisis communication: Effects of media and response strategies on perceptions and intentions. *Public Relations Review*, 35(1), 1-6. doi: 10.1016/j.pubrev.2008.09.011

Coombs, W., & Holladay, S. (2). (2011). *The handbook of crisis communication*. Retrieved from <https://leseprobe.buch.de/images-adb/ad/5d/ad5d6783-9c78-4021-9259-e0f6c79ea295.pdf>

Coombs, W. T., & Holladay, J. S. (2012). The paracrisis: The challenges created by Publicly managing crisis prevention. *Public Relations Review*, 38(3), 408-415.

Cowley, S. (2016). Voices From Wells Fargo: 'I Thought I Was Having a Heart Attack'. *Nytimes.com*. Retrieved from <https://www.nytimes.com/2016/10/21/business/dealbook/voices-from-wells-fargo-i-thought-i-was-having-a-heart-attack.html>

Edelman (2018). *Edelman Trust Barometer* (Research Report 2018). Retrieved from [https://edelman.com/sites/default/files/2018-04/Edelman\\_Trust\\_Barometer\\_Implications\\_for\\_CEOs\\_2018.pdf](https://edelman.com/sites/default/files/2018-04/Edelman_Trust_Barometer_Implications_for_CEOs_2018.pdf)

Egan, M. (2017). Wells Fargo's legal headaches are hurting its profits. Retrieved from <http://money.cnn.com/2017/10/13/investing/wells-fargo-legal-trouble-earnings/index.html>

Griffin, M., Babin, B. J., & Darden, W. R. (1992). Consumer assessments of responsibility for product-related injuries: The impact of regulations, warnings, and promotional policies. *ACR North American Advances*, 19, 870-878. Retrieved from <http://t.acrwebsite.org/search/view-conference-proceedings.aspx?Id=7404>

Haigh, M., & Brubaker, P. (2010). Examining how image restoration strategy impacts perceptions of corporate social responsibility, organization-public relationships, And source credibility. *Corporate Communications: An International Journal*, 15(4), 453-468. doi: 10.1108/13563281011085538

Helm, S. (2011). Employees' awareness of their impact on corporate reputation. *Journal of Business Research*, 64(7), 657-663. <http://dx.doi.org/10.1016/j.jbusres.2010.09.001>

Holladay, S. (2009). Crisis Communication Strategies in the Media Coverage of Chemical Accidents. *Journal of Public Relations Research*, 21(2), 208-217. <http://dx.doi.org/10.1080/10627260802557548>

Kim, H., & Cameron, G. (2011). Emotions Matter in Crisis. *Communication Research*, 38(6), 826-855. <http://dx.doi.org/10.1177/0093650210385813>

Kim, S., Zhang, X., & Zhang, B. (2016). Self-mocking crisis strategy on social media: Focusing on Alibaba chairman Jack Ma in China. *Public Relations Review*, 42(5), 903-912. doi:10.1016/j.pubrev.2016.10.004

McDaniel, C., & Gates, R. (9). (2012). *Marketing research*. Retrieved from <http://doc1.lbfl.li/aca/FLMF037627.pdf>

McDonald, L., & Härtel, C. E. J. (2000). *Applying the involvement construct to organisational crises*. Retrieved from [https://s3.amazonaws.com/academia.edu.documents/31158731/McDonald2.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1529551786&Signature=ypuYPkF5BgfEj%2BiEuK4w5DDvycA%3D&response-content-disposition=inline%3B%20filename%3DApplying\\_the\\_involvement\\_construct\\_to\\_or.pdf](https://s3.amazonaws.com/academia.edu.documents/31158731/McDonald2.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1529551786&Signature=ypuYPkF5BgfEj%2BiEuK4w5DDvycA%3D&response-content-disposition=inline%3B%20filename%3DApplying_the_involvement_construct_to_or.pdf)

Milburn, T., Schuler, R., & Watman, K. (1983). Organizational Crisis. Part I: Definition and Conceptualization. *Human Relations*, 36(12), 1141-1160.  
<http://dx.doi.org/10.1177/001872678303601205>

Pornpitakpan, C. (2004). The Persuasiveness of Source Credibility: A Critical Review of Five Decades' Evidence. *Journal of Applied Social Psychology*, 34(2), 243-281.  
<http://dx.doi.org/10.1111/j.1559-1816.2004.tb02547.x>

Shadish, W., Cook, T., & Campbell, D. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Retrieved from <https://alnap.org/system/files/content/resource/files/main/147>.

Pallant, J. (5). (2014). *SPSS survival manual*. Retrieved from <http://mheducation.co.uk/openup/chapters/0335208908.pdf>

Pang, A., Begam Binte Abul Hassan, N., & Chee Yang Chong, A. (2014). Negotiating crisis in the social media environment. *Corporate Communications: An International Journal*, 19(1), 96-118. doi: 10.1108/ccij-09-2012-0064

Reidenbach, R., & Pitts, R. (1986). Not all CEOs are Created Equal as Advertising Spokespersons: Evaluating the Effective CEO Spokesperson. *Journal of Advertising*, 15(1), 30-46. <http://dx.doi.org/10.1080/00913367.1986.10672986>

Roh, S. (2017). Examining the paracrisis online: The effects of message source, Response strategies and social vigilantism on public responses. *Public Relations Review*, 43(3)587-596. <http://dx.doi.org/10.1016/j.pubrev.2017.03.004>

Ruggiero, A., & Vos, M. (2014). Social media monitoring for crisis communication: Process, methods and trends in scientific literature. *Online Journal of Communication and Media Technologies*, 4(1), 105-130. Retrieved from <http://ojcmt.net/articles/41/415.pdf>

van Zoonen, W., van der Meer, T., & Verhoeven, J. (2014). Employees work-related social-media use: His master's voice. *Public Relations Review*, 40(5), 850-852. <http://dx.doi.org/10.1016/j.pubrev.2014.07.001>

van Zoonen, W., & van der Meer, T. (2015). The Importance of Source and Credibility Perception in Times of Crisis: Crisis Communication in a Socially Mediated Era. *Journal of Public Relations Research*, 27(5), 371-388. <http://dx.doi.org/10.1080/1062726x.2015.1062382>

Vidmar, N. (1993). Empirical Evidence on the Deep Pockets Hypothesis: Jury Awards for Pain and Suffering in Medical Malpractice Cases. *Duke Law Journal*, 43(2), 217. <http://dx.doi.org/10.2307/1372792>

Weiner, B. (1972). Attribution Theory, Achievement Motivation, and the Educational Process. *Review of Educational Research*, 42(2), 203-214. doi: 10.2307/1170017

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological review*, 92(4), 548-573. doi: 10.1037/0033-295X.92.4.548

Yale (2018). Scholarly vs. Popular Sources [website]. Retrieved from <https://ctl.yale.edu/writing/using-sources/scholarly-vs-popular-sources>

Yang, S., Kang, M., & Johnson, P. (2010). Effects of Narratives, Openness to Dialogic Communication, and Credibility on Engagement in Crisis Communication Through Organizational Blogs. *Communication Research*, 37(4), 473-497. doi: 10.1177/0093650210362682

## Appendix A

*Victim Cluster:* In these crisis types the organization is also a victim of the crisis.

*Natural disaster:* Acts of nature that damage an organization such as an earthquake.

*Rumors:* False and damaging information about an organization is being circulated.

*Workplace violence:* Current or former employee attacks current employees on-site.

*Product tampering/Malevolence:* External agent causes damage to an organization.

*Accidental Cluster:* In these crisis types the organizational actions leading to the crisis were unintentional.

*Challenges:* Stakeholders claim an organization is operating in an inappropriate manner.

*Megadamage:* A technical accident where the focus is on the environmental damage from the accident.

*Technical breakdown accidents:* A technology or equipment failure causes an industrial accident.

*Technical breakdown recalls:* A technology or equipment failure causes a product to be recalled.

**Figure 1: SCCT crisis clusters (Coombs, 2006, p.244)**

### Deny Response Option

*Attack the accuser:* Crisis manager confronts the person or group claiming something is wrong with the organization.

- The organization threatened to sue the people who claim a crisis occurred.

*Denial:* Crisis manager asserts that there is no crisis.

- The organization said that no crisis event occurred.

*Scapegoat:* Crisis manager blames some person or group outside of the organization for the crisis.

- The organization blamed the supplier for the crisis.

### Diminish Response Option

*Excuse:* Crisis manager minimizes organizational responsibility by denying intent to do harm and/or claiming inability to control the events that triggered the crisis.

- The organization said it did not intend for the crisis to occur and that accidents happen as part of the operation of any organization.

*Justification:* Crisis manager minimizes the perceived damage caused by the crisis.

- The organization said the damage and injuries from the crisis were very minor.

### Deal Response Option

*Ingratiation:* Crisis manager praises stakeholders and/or reminds them of past good works by the organization.

- The organization thanked stakeholders for their help and reminded stakeholders of the organization's past effort to help the community and to improve the environment.

*Concern:* Crisis manager expresses concern for the victims.

- The organization expressed concern for the victims.

*Compassion:* Crisis manager offers money or other gifts to victims.

- The organization offered money and products as compensation.

*Regret:* Crisis manager indicates the organization feels bad about the crisis.

- The organization said it felt bad that the crisis incident occurred.

*Apology:* Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness.

- The organization publicly accepted full responsibility for the crisis and asked stakeholders to forgive the mistake.

**Figure 2: Crisis response Strategies by Response Options SCCT (Coombs, 2006, p.248)**

## Appendix B

### Stimuli materials – Facebook posts



George Allington

Add Friend Message ...

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request.

Add Friend

Search George's posts, friends, tags

George Allington Just now

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as the CEO of PlasTech Innovations can state that the allegations made by the US Fish and Wildlife service and The Times are ungrounded. PlasTech Innovations is a company that was established in 1960 and has always followed a strict chemical cleaning policy. This policy is monthly tested through private bodies by taking water and air samples in and around the company. I therefore can guarantee that PlasTech Innovations has nothing to do with the animal species being found dead at the Shiawassee Refuge. Never would we illegally dump chemicals in the water that could harm people and nature. I would kindly like to ask The Times as well as the US Fish and Wildlife service to withdraw their accusations and apologize for the negativity caused towards PlasTech Innovations.

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

Photos

### Condition 1 (CEO + Deny strategy)

George Allington

Add Friend Message ...

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request

Add Friend

Search George's posts, friends, tags

George Allington Just now

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

Photos

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as the CEO of PlasTech Innovations can state that the allegations made by the US Fish and Wildlife service and The Times caused an internal inspection. PlasTech Innovations is a company that was established in 1960 and has always followed a strict chemical cleaning policy. Unfortunately, a leakage was detected in one of our chemical storing containers. I therefore can guarantee that PlasTech Innovations never intentionally risked to harm people and nature and we thus regret that this leakage costed so many animal lives. PlasTech will get to the bottom of the problem how chemicals could have leaked out of the containers. A stricter policy will be in place from now on which will prevent this terrible crisis from happening ever again.

## Condition 2 (CEO + diminish strategy)



George Allington

Add Friend Message

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request.

Add Friend

Search George's posts, friends, tags

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

George Allington  
Just now

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as the CEO of PlasTech Innovations I can state that we take full responsibility for chemicals ending up in the river. This should never have happened as we have endangered not only protected animals, but also citizens of Michigan. Therefore I want to offer my sincerest apology and it will be made sure that such a crisis will never happen again.

Like Comment Share

### Condition 3 (CEO + Apology strategy)



George Allington

Add Friend Message

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request.

Add Friend

Search George's posts, friends, tags

George Allington updated his status. Just now

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as an employee at PlasTech Innovations can state that the allegations made by the US Fish and Wildlife service and The Times are ungrounded. PlasTech Innovations is a company that was established in 1960 and has always followed a strict chemical cleaning policy. This policy is monthly tested through private bodies by taking water and air samples in and around the company. I therefore can guarantee that PlasTech Innovations has nothing to do with the animal species being found dead at the Shiawassee Refuge. Never would we illegally dump chemicals in the water that could harm people and nature. I would kindly like to ask The Times as well as the US Fish and Wildlife service to withdraw their accusations and apologize for the negativity caused towards PlasTech Innovations.

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

Photos

#### Condition 4 (Employee + Deny strategy)



George Allington

Add Friend Message ...

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request.

Add Friend

Search George's posts, friends, tags

George Allington 1 min

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

Photos

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as an employee at PlasTech Innovations can state that the allegations made by the US Fish and Wildlife service and The Times caused an internal inspection. PlasTech Innovations is a company that was established in 1960 and has always followed a strict chemical cleaning policy. Unfortunately, a leakage was detected in one of our chemical storing containers. I therefore can guarantee that PlasTech Innovations never intentionally risked to harm people and nature and we thus regret that this leakage costed so many animal lives. PlasTech will get to the bottom of the problem how chemicals could have leaked out of the containers. A stricter policy will be in place from now on which will prevent this terrible crisis from happening ever again.

### Condition 5 (Employee + Diminish strategy)



George Allington

Add Friend Message

Timeline About Friends Photos More

DO YOU KNOW GEORGE?

To see what he shares with friends, send him a friend request.

**George Allington**  
2 mins ·

After previous allegations that were made against PlasTech Innovations, I must say that I was very shocked. I as an employee working at PlasTech Innovations I can state that we take full responsibility for chemicals ending up in the river. This should never have happened as we have endangered not only protected animals, but also citizens of Michigan. Therefore I want to offer my sincerest apology and it will be made sure that such a crisis will never happen again

Like Comment Share

Intro

- Works at PlasTech Innovations
- Studied at Saginaw Valley State University
- Went to Saginaw Valley State University Roberts Fellows
- Lives in Saginaw, Michigan
- From Saginaw, Michigan

### Condition 6 (Employee + Apology strategy)

## **Company description and biography - CEO**

### **Company description**

*PlasTech Innovations is an American multinational chemical company headquartered in St. Charles, Michigan. PlasTech Innovations provides chemicals, plastics, and agricultural products and operates in approximately 35 countries. It has more than 6,000 product groups that are manufactured at 179 sites across the globe. PlasTech Innovations is the leading global supplier of every major polyethylene (PE) resin worldwide (2016) and the world's largest producer of chlorine and polyalkylene glycols. It was ranked as the world's largest plastics manufacturer during 2008. PlasTech Innovations' principal lines of business include agricultural sciences, consumer solutions, infrastructure solutions, performance materials & chemicals, and performance plastics. In 2015, the company had annual sales of nearly \$49 billion and employed approximately 49,500 people worldwide.*

### **Biography**

*George Allington is the CEO of PlasTech Innovations. He has been working here for 30 years and feels very happy and comfortable in his job. Where he once started at 21 years old as a boy, just graduated from college, he now is still loyal to the company that gave him everything he wished for workwise. George Allington is 51 years of age and has a wife, Ashley Allington (46) and two children Mae Allington (18) and Jackson Allington (14). In his spare time, George likes to play football with his son or have quality time with his family by eating out once in a while. The family Allington lives in Saginaw, which is located 20 km away from PlasTech Innovations.*

## **Company description and biography – Employee**

### **Company description**

*PlasTech Innovations is an American multinational chemical company headquartered in St. Charles, Michigan. PlasTech Innovations provides chemicals, plastics, and agricultural products and operates in approximately 35 countries. It has more than 6,000 product groups that are manufactured at 179 sites across the globe. PlasTech Innovations is the leading global supplier of every major polyethylene (PE) resin worldwide (2016) and the world's largest producer of chlorine and polyalkylene glycols. It was ranked as the world's largest plastics manufacturer during 2008. PlasTech Innovations' principal lines of business include agricultural sciences, consumer solutions, infrastructure solutions, performance materials & chemicals, and performance plastics. In 2015, the company had annual sales of nearly \$49 billion and employed approximately 49,500 people worldwide.*

### **Biography**

*George Allington is an employee at PlasTech Innovations. He has been working here for 30 years and feels very happy and comfortable in his job. Where he once started at 21 years old as a boy, just graduated from college, he now is still loyal to the company that gave him everything he wished for workwise. George Allington is 51 years of age and has a wife, Ashley Allington (46) and two children Mae Allington (18) and Jackson Allington (14). In his spare time, George likes to play football with his son or have quality time with his family by eating out once in a while. The family Allington lives in Saginaw, which is located 20 km away from PlasTech Innovations.*

### **Fictitious news article reporting on the crisis**

“After multiple reports of rare fish and migratory birds had been found dead on the riverbed of the Shiawassee Refuge in Michigan, the US Fish and Wildlife service started a private investigation. After biologists took several air and water samples from the refuge, they found a high concentration of chemicals in the water. During dissection, these chemicals were also found in the intestines of the fish and birds. After further investigations famous chemical and plastic producer PlasTech Innovations was found to produce the same chemicals as were found in the river. An undercover investigation found that PlasTech Innovations has been illegally dumping residual chemicals in the river. An inside source confirmed that the famous company has been doing this for over a year now. Due to low water levels, the concentration became lethal to thousands of rare fish and birds. However, not only animal species have been a victim of the poisonous water, several similar cases of people reported migraine attacks combined with severe stomach aches and sometimes even dyspnea after they had swum in the river. Further legal investigations will be held. PlasTech has not yet responded to the severe allegations made.” – The Times