

THE INTERPLAY EFFECTS OF CRISIS TYPE, RESPONSES, AND MEDIUM ON  
STAKEHOLDERS' AFFECT, REPUTATION, ATTITUDES, AND BEHAVIORAL  
INTENTIONS FOR PRODUCT RECALL CRISES

By

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To my father and mother, for being my supporters and inspiration

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Abstract of Dissertation Presented to the Graduate School  
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The rise of the social media has provided organizations with the options available for communicating a crisis. Organizations can update their stakeholders using traditional media, such as television or newspapers. In addition, organizational websites provide diverse stakeholders with a highly accessible information about a crisis. Social media are also used to promote two-way communications with a variety of stakeholders involved in a crisis. While organizations can use different types of media to better communicate with stakeholders in times of crisis, a smaller body of research has identified the effects of different media on stakeholders' evaluation of an organization, which the current study aimed to fill from a situational crisis communication theory (SCCT) perspective. The current study conducted an online experiment by employing a 2 (crisis type: victim vs. preventable) X 2 (crisis response strategy: diminishment vs. rebuilding) X 3 (medium: corporate blog vs. corporate Facebook vs. New York Times) between-subject design. A fictitious company, Pizzeria Palermo Foods Corporation that produces frozen pizza was created to understand the dynamics of crisis factors in post-crisis communications.

The data provided mixed support for the past situational crisis communication theory hypothesis. Crisis type and crisis responses were suggested to predict outcomes, such as the attribution of organizational crisis responsibility, emotion, trust, reputation, attitudes as well as behavioral and secondary crisis communication intentions (WOM). However, the effects of medium on outcomes were not observed. Findings of the current study suggested that the perceived organizational trust was a predictor for stakeholders' attitudes and behavioral intentions toward the organization.

This study contributes to building the body of knowledge of the situational communication theory by introducing new communication factors, medium, in to the crisis communication literature. The theoretical and practical implications of these findings are discussed. Limitations and suggestions for future research are also discussed.

## CHAPTER 1 INTRODUCTION

Current literature on organizational crisis communication defines a crisis as “the perception of an unpredictable” (Coombs, 2012), unique and specific event that has potential to damage the outcomes of an organization such as image, relationships, profits, material resources (Coombs, 1999; Fearn-Banks, 200; Seeger, Sellnow, & Ulmer, 2001; Ulmer et al., 2007). Given that a crisis can harm an organization’s operations, the goal of crisis communication is to protect an organization’s assets by effectively preparing and responding to a crisis. Based on such conceptualizations of a crisis and crisis communication, choosing effective crisis response strategies has been an essential part of crisis communication scholarship.

### **Purpose and Overview of Current Study**

The purpose of the current study is to examine the effect of different social media on the public’s attitude, cognition and behavior intentions for a food product recall crisis.

To test the proposed theoretical model (Figure 2-3), an online experiment was conducted by manipulating crisis type, crisis response strategy, and medium. Figure 2-3 provides a theoretical map of crisis communication process which guides the current investigation. In a 2 (crisis type: victim vs. preventable) X 2 (crisis response strategy: diminishment vs. rebuilding) X 3 (medium: corporate blog vs. corporate Facebook vs. New York Times) between-subject design, the participants were asked to read an official crisis report of pizza recall reported by the U.S. Department of Agriculture’s Food Safety and Inspection Service (FSIS) and crisis response strategies provided by Pizzeria Food Corporation, a fictitious company that produces frozen pizza.

This study used two different crisis types, namely, an accident and a transgression. An accident occurs due to an organization's misdeeds (i.e., internal attributions of crisis responsibility), while a transgression is believed to happen due to external reasons. Intentionality is emphasized in this study because, as SCCT posits, intentionality makes a difference between an accident (unintentional) and a transgression (intentional), which in turn determines stakeholders' perception of 'responsibility' of the crisis (Coombs, 2007) and their future behavioral intentions.

As to medium, this investigation compared the relative effects of three different medium, including corporate blog, Facebook and traditional media on stakeholders' attitudes and purchase intentions. Research has observed that publics' use of social media increases for crises (Pew Internet & American Life, 2006; Rainie, 2005). Publics rush to online for more information especially early phase of crisis during when traditional media is not (able) to provide extensive coverage of the crisis (Thelwall & Stuart, 2007).

Even if crisis communication research has moved beyond case studies and toward experimental research on evaluating the effectiveness of public relations efforts and understanding publics' perception of crisis response strategies, the potential effect of social media as a communication channel on publics' cognition and behaviors are understudied. To fill this gap, this study examined the main and the interaction effects of crisis factors, including crisis type, strategy, and medium on publics' affect, cognition (impression toward), perceived relationship with the organization, attitude, as well as purchase intention and secondary communication intention (positive WOM).

There are several reasons why more research on the use of organizational social media, such as the comparison between blogs and Facebook, is needed.

Although blogs and Facebook are the most popular social networking sites, current trends show that more and more bloggers are moving to Facebook. For instance, Jin et al. (2011b) pointed out that there has been a transition from blogs to social media in this current digital media sphere. That is, influential bloggers are converted to influential social media creators and blog followers are converted to social media followers. Even though there has been the transition from blogs to Facebook, organizations tend to keep both blogs and Facebook as practitioners are not sure of the effectiveness of social media, which result in wasting of money and time in managing most popular social media into business. As scholars noted, crisis managers are in need of theoretically developed and tested knowledge to provide crisis management guidelines (Laufer & Coombs, 2006), this study added to existing crisis research by incorporating an experiment design to investigate the impacts of crisis responsibility, response strategy and different social media on consumers' reactions for a product recall crisis.

### **Need for Current Study**

Even if crisis communication literature has suggested theoretical implications and practical guidelines on how to effectively manage a crisis, there is a growing need for exploring the limitations of the current dominant crisis communication research (Kim & Dutta, 2009). First, one of the limitations is that there is a dearth of research that examines the effectiveness of social media in a corporate crisis context, not from the organization's perspective but from public's view. As Coombs (2007) noted, the future

direction of study in crisis management should go beyond the organization's response, and move more toward public response research.

According to Pew Internet & American Life Research (2006), more and more people turn to online to seek information during crises. Yet, recent research observed that many organizations and communication managers hesitate to use social media and to support for its use especially for managing a crisis because social media tends to be believed less credible source than other traditional media (Wright & Hinson, 2009). To date, for this reason, social media, as a strategic communication channel for managing a crisis has received scant scholarly attention, even if a growing number of research covered how organizations and practitioners use social media. There has been, however, an acknowledged need for more scholarship specifically on examining the effect of crisis messages delivered via different communication platforms, including social media, on the public's responses (e.g., Avery, 2010; Coombs & Holladay, 2009; Yang, Kang & Johnson, 2010).

Although the integration of social media into crisis communication has studied intensively in the past few years, the effects of the interplay among different social media and different crisis response strategies are still understudied. Studies on social media and crisis communication mostly focus on the impact of social media in comparison with traditional media (e.g., Liu, Austin & Jin, 2011; Schultz, Utz, & Goritz, 2011). The impacts of crisis communication via different social media such as blogs in comparison with Facebook have not yet been studied experimentally.

Second, public relations scholars have continuously suggested outcome oriented research in evaluating public relations effects. Scholarship in public relations has

admitted that research has focused on assessing public relations outputs, such as activities, events, services, and products that reach people, and has suggested moving forward to evaluating outcomes (Kim, 2001; Hon, 1998). Public relations literature has indicated that outcome research involves two main streams, which are, behavioral outcomes and relational outcomes. Scott (2007, 2008), for instance, advocates measuring behavioral outcomes such as changes in attitudes, opinions, and behaviors that might be caused by public relations efforts. In addition to attitude-behavioral changes, relational outcomes have been critical in public relations research since Ferguson (1984) has suggested relational approach in understanding public relations effects. Although previous research has extended the scope of crisis research to incorporate social media, scholars suggested that classical crisis communication theories disregard the role of medium (Utz, Schultz, & Glocka, 2013), especially in understanding publics' relational and behavioral outcomes influenced by public relations efforts.

Third, in order to fully appreciating publics' behavioral reactions to organizational crisis responses, the effects of publics' attitude should be understood in post-crisis communication effectiveness. Attitude-behavior oriented theories, such as theory of reasoned action (TRA, Fishbein & Ajzen, 1975) and theory of planned behavior (TPB, Ajzen, 1991) have empirically demonstrated that emotion plays a critical role in shaping one's behavior. Although important, the role of attitude has been understudied in traditional crisis communication theory (e.g., Coombs, 2007), and a comprehensive model that outlines crisis attribution, crisis response strategies, publics' evaluation of and reactions to the organization has yet to be fully developed.

## **Theoretical Framework and Implications**

Situational crisis communication theory (SCCT). The initial approach to crisis communication was mostly done by practitioners, recounting cases they experienced and explaining the efforts made to manage the crises. Case studies were helpful for understanding what was effective for the specific type of crises, yet they were limited in its applicability. Case study driven approach was “simply descriptive” (Coombs, 2010, p.23) which lacks systematic framework to draw accepted wisdom. In time, an advanced effort has been made through using analytic framework.

To date, the situational crisis communication theory (SCCT, Coombs & Holladay, 2002) has been a promising theoretical framework for understanding the effects of crisis response strategies on publics’ perception of the organization. More specifically, SCCT explains how the interplay among organizational past crisis history, the attribution of crisis responsibility and the organization’s crisis response affect publics’ perception of the organization’s reputation and behavioral intentions. Empirical studies have demonstrated the linkage among these variables. For instance, Applying SCCT to airline crash crises within the context of Hong Kong, Lee (2005) observed that people’s perceptions of organizational responsibility for a crisis have significant direct effects on their impression of the organization. Her findings also suggested that the locus and the degree of crisis responsibility were associated with the general perception of the organization, which decided further reactions to the organization.

**Attitude and behavioral intentions.** The Theory of Reasoned Action (Fishbein & Ajzen, 1975) suggests that there is a consistency between attitude and behavior. Thus, the TRA offers a framework for predicting actual behavior from attitudes and

behavioral intentions (Perloff, 2008). Based on this model, it is logical to think that stakeholders' behavioral intentions (i.e., purchase intention) should be predicted from their attitudes toward the organization.

### **Theoretical and Practical Contributions**

The findings of this study demonstrated a theoretical model of the relationship among perceptions of crisis responsibility, affect, attitudes toward an organization, and behavioral intentions. By doing this, this study contributed to explanation of how attitudes works in a crisis context—a situation in which SCCT theory has not yet been tested.

In addition, the current study expanded the widely accepted crisis communication theory, SCCT, by incorporating social media to the model. Findings of this experiment contributed to understanding the causal effect of communication channels on the public's emotion, trust, perceived organization's reputation, attitudes and behavior intention. As Coombs (2007) noted, the future direction of study in crisis management should go beyond the organization's response, and move more toward public response research.

This study also provided empirical contributions to public relations practitioners in aiding them to make wise decisions when choosing social media as communication channels for creating a dialogue between the organization and stakeholders.

Development of new technology has been significant in crisis communication research. As a crisis is an unexpected situation that involves a considerable threat, ongoing uncertainty and intensity, crisis management requires immediate and effective actions to diminish the damage. For this, understanding the effects of emerging communication

media is imperative for crisis communication managers so that they can strategically determine which media to incorporate into the crisis communication and evaluate the effectiveness of those media for future planning.

While the initial works on new media in crisis communication focused on the Internet and was quite descriptive (e.g., Perry & Taylor, 2005), later research examined the different types of media for crises (e.g., Coombs & Holladay, 2009) and widened its scopes to examining the role of social media such as blogs, twitter and Facebook in comparison with the traditional media (e.g., Freberg, 2012; Liu, Austin, & Jin, 2011; Schultz, Utz, & Goritz, 2011; Utz, Schultz & Glocka, 2013; van der Meer & Verhoeven, 2013; Yang, Kang, & Johnson, 2010). Although useful, no research has compared the effects of different social media on post-crisis communication, which the current study aims to fill. Findings of the study, therefore, provided valuable insights into social media effects in evaluating public relations outcomes, involving changes in publics' perceptions of crisis responsibility, cognition, attitudes, and behavioral intentions in accordance with different social media.

This study also provided empirical contributions to public relations practitioners in aiding them to make wise decisions when choosing communication channels for creating a dialogue between the organization and stakeholders.

Even though findings of previous studies on social media are useful, they have been lacked with theoretical foundations and little efforts have been paid to understand which organizational social media is most effective in crisis communication. By comparing the effects of blogs and Facebook, which are the most popular social networking sties, on publics' reactions to the organization, findings of the study provided

“evidence-based guidelines” (Jin et al., 2011b, p.3) with crisis communication managers with “how to” effectively integrate social media to crisis communication. The theory based approach will help practitioners decide where to invest time and money by strategically choosing the primary social media for crisis communication.

## CHAPTER 2 LITERATURE REVIEW

This chapter reviews literature related to allied concepts of a crisis, theories on crisis communication, and theories on public behavior. The linkages between those theories and related concepts are also examined.

### **Characteristics of Crisis and Its Allied Concepts**

#### **Casual Use of the Term, Crisis**

The term crisis is used casually in daily conversation, applied to various different spheres of our life. In an individual sphere, crisis could range from a simple bad occurrence such as a bad hair day to a more extreme situation such as divorce. Crisis also is used to refer to natural disasters, such as forest fires, hurricanes, and tsunamis in which the impact of those events has on regional, national and even global level. Business environment is another sphere where organizations could experience different types of negative events from technical errors to cyber sabotage.

As seen, the term, crisis, is casually used across different areas, and used interchangeably with its allied concepts. This requires a caution to enhance our understanding of the nature of crisis.

First, identifying a crisis by spheres alone where it occurs, is not an accurate way to recognize what constitutes a crisis because a crisis impacts many inter-related dimensions from individuals to all over the world. For instance, cyclone Sandy, which produced major coastal flooding in the Northeast area in US, has affected almost every aspect of lives involving individuals, businesses, communities, and societies. Political sphere is not an exception from the damage of the natural disaster as Sandy's wake

could make voting difficult in US. This will affect diplomacy and international relations among many countries.

Another issue related to informal use of the term, crisis, is that it is interchangeably used with its allied concepts such as issues, risks, and natural disasters which require different approaches to manage them respectively. When reviewing the closely related disciplines of crisis communication, defining each concept can be a good starting point to draw lines among them. Therefore, the following section will first introduce allied terms that are similarly utilized with crisis and will define what a crisis is.

Scholarship has suggested that the boundary of defining a crisis is blurry. Reviewing communication literature has identified four areas that are commonly overlapped with crisis communication, namely, issues management, risk communication and disaster communication, (e.g., Coombs, 2010; Jaques, 2007, 2009).

### **Issues and Issues Management**

Issues management as a scholarly field has not received much attention until 1984 when Chase first made an attempt to define it. According to Chase (1984), an issue is “an unsettled matter which is ready for decision” (p.38). Ever since Chase’s pioneering work, there have been different approaches in defining what an issue and issues management is. Yet, a broad consensus could be found in defining issues. An issue is defined as a problem that requires resolution through strategic management (e.g., Chase, 1984; Register & Larkin, 2002). Issues management seeks to reduce the negative impact or create a positive effect anticipated from an issue. In this sense, issue management seems to be interchangeably used with crisis communication, which is not

true. While crisis communication focuses more on what to say and how to say, it is commonly agreed that managing issues involves policy decisions (Coombs, 2010; Jaques, 2009; Heath, 2005). Heath (2005), the leading expert in issues management, defines issues management as “a strategic set of functions used to reduce friction and increase harmony between organizations and their publics in the public policy arena” (p.460). Conceptualizing issues and issues management from the literature, Jaques (2009) advocates Heath’s public policy approach to issues management. Jaques (2009) observed that business and governments used issues management as a process to “promote and implement public policies” (p.286) in an attempt to advance their positions. Nonprofit organizations, such as NGOs and activist groups also make full use of Issues management. Their purpose of issues management is not only to against the decisions and actions of corporations and government, but to create greater public participation which could affect individual and institutional destiny (Chase, 1982).

An issue and a crisis, however, can affect each other. As Coombs noted (2010), “an issue can create a crisis or a crisis can create an issue” (p.55). For instance, a governmental prohibition on lead paint can be a crisis for some organizations which use lead paint in their products. At the beginning, a governmental ban itself is an issue; however, the issue can be developed as a crisis for the organizations if the governmental decision disrupts the operation of the organizations. Even if issues management involves government decisions, it is essential to note that some other stakeholders, such as activist groups, can raise issues that could affect an organization’s operations or policies (Coombs, 2010). Therefore, it is suggested that

organizations make the most of issues management as warning signs to prevent an issue to be developed to a crisis.

### **Risk and Risk Communication**

Risk refers to the quantified threat that has a potential to induce harm or even loss for organizations or individuals. If mismanaged, it is obvious that a risk can develop into a crisis (Coombs, 2010). The purpose of risk management is to lessen the magnitude of threat that could cause negative consequences from the risk identified. In the early phases of risk management research and practice suggested that 'factual knowledge', which refers to a quantitative degree of risks, was the primary predictor that determines whether people support or oppose to take risks. Later studies, however, did not confirm this supposition (Flynn, Slovic, & Mertz, 1993; Heath & Abel, 1996; Nathan, Heath, & Douglas, 1992) and recognized that simply delivering a quantitative degree of risks has limited ability to persuade people to bear risks. This line of findings suggest that later research tends to focus more on 'communicating qualitative aspects' (Heath, Seshadri & Lee, 1998) of risks such as fear, dread, inequity feelings etc., which risk-takers might experience as a result of a risk. Focusing more on communication perspective, National Research Council (NRC, 1989) published its seminal book, *Improving Risk Communication*, and provided the standard definition of risk communication.

Risk communication is an interactive process of exchange of information and opinion among individuals, groups, and institutions. It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concerns, opinions, or reaction to risk messages or to legal or institutional arrangements for risk management. (p. 21)

As a sub-discipline of public relations, Palenchar (2005) defined risk communication as “a community infrastructure, transactional communication process among individuals and organizations regarding the character, cause, degree, significance, uncertainty, control, and overall perception of risk” (p.752). This definition denotes that an organization which has potential to create risk focuses on communicating its risk to stakeholders, such as community members, who must bear the risk. Therefore, risk communication involves explaining the consequences of risks to the involved stakeholders who need to tolerate the risk so that they can “become more comfortable with the risk” (Coombs, 2010, p.57). For this, organizations should demonstrate their responsibility to reduce the risk and ask for stakeholders’ help in order to manage the risk.

In regards to what is/should be communicated during risk communication, Coombs (2010) noted that risk communication shares some aspects with crisis communication. He argued that both risk and crisis communication delivers both instructing and adjusting information. Instructing information tells involved stakeholders how to protect themselves physically from a crisis while adjusting information deals with how people can psychological cope with the risk/crisis. The objective of providing both instructing and adjusting information is to help the stakeholders to be vigilant so that they can be prepared to act.

### **Disaster and Disaster Communication**

Even though natural disasters received attention in crisis communication scholarship which also require a strategic process for their management (e.g., Rød, S. K., Botan, C., & Holen, A., 2011, 2012; Spence, P. R., McIntyre, J. J, Lachlan, K. A.,

Savage, M. E., & Seeger, M. W, 2011; Tanner, A., Friedman, D. B., Koskan, A., & Barr, D., 2009), there is no consensus on what a disaster is (Perry & Quarantelli, 2005).

According to Coombs (2010), the US government defines a disaster as “a dangerous event that causes significant human and economic loss and demands crisis responses beyond the scope of local and State resources. Disasters are distinguished from emergencies by the greater level of response required” (Principles, 2003: 2.2).

According to this working definition of disasters, we could note two key features that differentiate disaster communication from crisis communication. First, disasters demand coordinated efforts of multiple agencies, such as federal, state, local, etc., while most crisis communication is designed / held by one individual sector organization. Second, in terms of responsibility, the government, by law, is responsible for the disasters while the private sector organization is expected to respond to an individual crisis. As Coombs (2010) wrote, all disasters can become crises while not all crises are disasters. For instance, disasters, if mismanaged, can be crises for government. Third, the first priority of disaster communication is to protect the safety of public. On the other hand, the individual crisis communication efforts are made for the sake of the organization and its stakeholders' needs and safety.

Even if the distinction between disaster communication and crisis communication has been observed, there is an overlap between the two. As Coombs emphasized (2010), the initial responses of both disasters and crisis communication share a need to address public safety first.

## **Relational Approach to Crisis Management**

As stated, crisis communication should be understood as an independent discipline as it requires its own strategic approaches targeting for specific key holders. Yet, a definitional approach itself is not good enough to fully appreciate the interconnectedness with three other key disciplines of public relations, namely, issues management, risk communication and disaster communication (Coombs, 2010). In this sense, it is more appropriate to adopt Jaques (2007)'s relational model of crisis management for a full understanding.

The relational model presents that issues management, risk communication and crisis management are not separate, linear constructs but integrated, non-linear and relational ones. Instead of separating each activity as an each step, the model consists of four clusters, crisis preparedness, crisis prevention, crisis event management, and post-crisis management. The relational model illustrates how related disciplines are interconnected. For instance, issues and risk management is part of crisis prevention cluster because issues can be warning signs of future crises and both issues and risk management help "identify problems early and effectively manage them to reduce the chance of a problem becoming a crisis" (Jaques, 2007, p.156). The relational model emphasizes 'holistic' view of related disciplines as each activity is planned and managed interrelated "to minimize human and financial cost and reduce both the risk and impact of adverse events" (Jaques, 2007, p.157).

## The Relational Model of Crisis Management

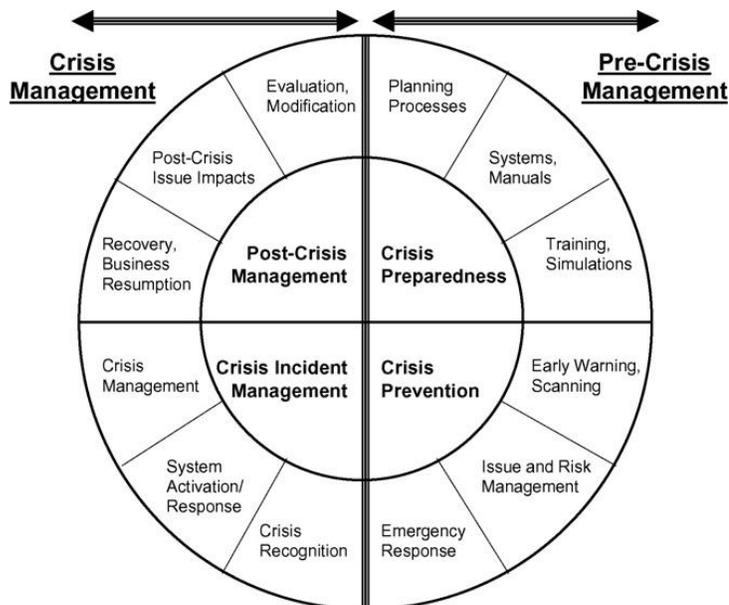


Figure 2-1. Issue and crisis management relational model© (© Issue Outcomes P/L 2007).

### Characteristics Separating Crises from Negative Occurrences

Regardless of domains where we live and what we do, no individuals and organizations are exempt from crises. Yet, as stated in the previous section, not all the accidents qualify what we call a crisis. Shrivastava and Mitroff (1987) affirmed that preventing and managing a crisis is totally possible only when fully understanding what constitutes a crisis. Therefore, this section discusses the characteristics that qualify the negative events as a crisis.

In earlier scholarship, Hermann (1963) identified three characteristics that determine an event to be a crisis including: 1) surprise, 2) threat, and 3) short response time. Building upon previous literature on crisis, Coombs (2007) also identified three dimensions useful for public relations professionals to diagnose whether an issue is a crisis or not. These three dimensions are: 1) perceived importance, 2) immediacy, and

3) uncertainty. Herman's short response time and Coombs' immediacy are similar concepts as both represent that a crisis allows only a short amount of time for the organization to explain what happens and to respond to a public's needs. This section will briefly elaborate the five characteristics of a crisis, namely, 1) surprise, 2) threat, 3) short repose time or immediacy, 4) uncertainty and 5) perceived importance.

### **Surprise**

According to Hermann (1963), an event can reach the level of a crisis if the event progresses beyond our expectations and brings intensive surprising results. The good example can be Domino's prank video posted online, Youtube. On April 12, Easter Sunday, 2009, two Domino's Pizza employees in Conover, N.C., filmed a prank in the restaurant's kitchen and posted the video on Youtube. In the video, two employees can be seen violating health-code standards such as sticking cheese up his nose and then putting it on a sandwich, spraying snot on the food items and passing gas on meat products while the other provided narration. The impact of the prank footage was immediate and went beyond expectations. The video reached nearly 1 million views within three days. Consumers' perception of the quality of Domino's went from positive to negative which damaged Domino's reputation (Clifford, 2009).

In this sense, natural disasters, such as floods, tornados, hurricanes, volcanic eruptions, earthquakes, heat waves, and landslides, etc., cannot be defined as crises if they do not exceed the predictions and overwhelm the scope of management planned ahead of the hazards. Communication research, yet, observed exceptions that defined natural disasters as crises. They are wildfires (Cedar and Paradise) occurred in the San Diego area in 2003. The wildfires lead to high degree of surprise including 16 deaths

and loss of 2427 homes and businesses; the worst damage in the history of San Diego and California (Franklin, 2003).

Despite the efforts made by researchers and government officials to minimize the effects of the fires using cutting edge technologies, both wildfires were defined as crises because they did not follow the anticipated patterns set forth in scholarly predictions of wildfire behaviors.

### **Threat**

The second trait suggested by Hermann (1963) is the level of threat that reaches beyond the typical problems organizations face during normal business operations. The threat caused by a crisis can go beyond the organization's normal operation and affect its stakeholders in many ways, including financial, environmental, and/or human losses. The threat caused by British Petroleum's (BP) oil rig explosion in the Gulf of Mexico in 2010 was indescribable. Lasting nearly three months, the leak released about 4.9 million barrels (780,000 m<sup>3</sup>) of crude oil, killed 11 men working on the platform, and injured 17 others (Welch & Chris, 2010). According to a news report, one plume of dispersed oil measured 22 miles (35 km) in length, more than a mile wide, and 650 feet (200 m) deep, which could potentially suffocate marine life and create dead zones where oxygen is depleted (MSNBC, 2010-06-18). Besides the horrible impact of an oil spill on the ecosystem, its affect on the fishing industry was immeasurable. BP itself also experienced financial loss, spending \$500 million in the early phase of the crisis to learn about the short- and long-term effects of the oil spill on the environment and human health ("Gulf of Mexico Research Initiative", 2010). As the BP oil spill created a significant threat for many individuals and organizations, the Whitehouse categorized

the event as a crisis, and recorded it as “the worst environmental disaster America has ever faced” (The White House, June 15, 2010, Office of the Press Secretary, news release, Oval Office).

### **Short Response Time or Immediacy**

Due to the inherent nature of surprising and threatening aspects of a crisis, organizations must initiate a crisis communication plan immediately following the event. In so doing, an organization can set the tone for the crisis and instill a sense of control over the situation. However, providing a quick response to a crisis can be difficult for most organizations, as frequently during the initial phase little information is available regarding the cause of the event. Coombs (2007) labeled a short amount of time to respond as immediacy. Immediacy refers to the time pressure created by the crisis, and has two key elements: 1) how quickly the crisis will develop, and 2) the degree of pressure that stakeholders will need to experience to take action. Identifying these two elements of immediacy can help determine the severity of a crisis.

Understanding the unique traits of a crisis is an essential part of developing a comprehensive crisis communication program as it enables an organization to better deal with the surprise, threat, and short response time that all crises involve. Another feature of a crisis, absent from Hermann’s (1963) analysis, is uncertainty suggested by Coombs (2010).

### **Uncertainty**

Regardless of the type of crisis, every crisis involves some level of uncertainty. According to Ulmer, Sellnow, and Seeger (2011), uncertainty refers to “the inability to determine the present or predict the future” (p. 26). Managing uncertainty, especially

during a crisis, is critical for public relations professionals because uncertainty makes communication more complex, as a lack of accurate information can easily result in miscommunication. Kramer (2004) identified three situations that can increase uncertainty. People may experience uncertainty when they are not provided with enough information, when they feel that the information is complicated and hard to understand, and lastly, when they doubt the quality of information. Uncertainty and miscommunication capture the innate nature of a crisis, regarded by Coombs (2007) as a “information-poor and knowledge-poor situation” (p.113).

People are drawn to reduce uncertainty because it amplifies the frustrations associated with a problem. The greater the level of uncertainty, the more stress levels elevate and the motivated stakeholders become to deal with the potential harmful effects of a crisis (Coombs, 2007). Without exception, every organization should be at the center of the information flow during such crises, providing consistent and accurate information in order to reduce the degree of uncertainty. In this vein, an organization must be actively involved in correcting the situation from the beginning of a crisis, because extra effort and attention is required to manage issues high in uncertainty

### **Perceived Importance**

Perception of stakeholders has been stressed in crisis communication literature (e.g., Augustine, 1995; Frank, 1994; Higbee, 1992). Industrial accidents involving human loss or natural disasters, such as hurricanes and earthquakes, are clearly crises situations. However, as previously discussed, stakeholders that can be affected by the organization’s actions objectives and policies determine whether or not an event can be classified as a crisis (Bryson, 2004). Due to the nature of mutual influence between

stakeholders and an organization, the perception of stakeholders has received much attention in the public relations literature (e.g., Rawlins, 2006). Relying on Coombs' (2007) writing on stakeholder perception, a crisis exists when stakeholders believe that the organization is facing a crisis. Therefore, the critical defining factor of any crisis event is that it is the stakeholders' perceptions of the event, not solely the actual damage or impact, which affects how people evaluate the organization and its assets when a crisis occurs.

In summary, this section discussed the five characteristics, surprise, threat, short response time or immediacy, uncertainty, and perceived importance, that separate a daily problem from a crisis. Understanding crisis traits is important for public relations practitioners because the traits determine how to frame a crisis. Framing an issue as a crisis, either by media or the organization, establishes how an organization should respond to the crisis. In addition, the unique characteristics belonging to the crisis determine stakeholders' perceptions, which in turn affects organizational reputation (Coombs, 2007) and eventually influences people's interaction with (Dowling, 2002) and behavioral intentions toward the organization (Coombs & Holladay, 2007, 2008, 2009; Coombs, 2010). Therefore, the goal of crisis communication management is "to prevent or lessen the negative outcomes of a crisis and thereby protect the organization, stakeholders, and industry from harm" (Coombs, 2007a, p. 5).

## **Definition of Organizational Crisis and Crisis Communication**

### **Why Organizational Crises?**

The previous section reviewed the features commonly found in various types of crises occurring in different realms. As we have reviewed so far, the term, "crisis" is

used in every aspect of our lives, from individual level to global one. This current investigation, however, is going to limit its focus to organizational crises, more specifically corporate crisis communication for the following reasons.

Organizations are facing more and more negative events than ever that can threaten the integrity of an organization (Mitroff, 2001) due to complex and uncertain business environments (Gundel, 2005). Organizational crisis communication research (e.g., Coombs, 2010; Light, 2008) has suggested that organizations are experiencing greater pressure to deal with accidents than ever as “technological complexity and tight coupling of events” (Light, 2008, p. 3) increases. Technological advances have promoted globalization which exacerbates easier yet more complicated communication of all kinds of events regardless of geographical distances (Hart, P., Heyse, L., & Boin, A., 2001). In addition, the never ending news cycle on the Internet and cyber-attacks are growing which make accidents are more prevalent to any type of organizations (Perrow, 1984; Veil, Buehner, & Palenchar, 2011; Waters, Burnett, Lamm, & Lucas, 2009) which imply that crises are inevitable in organizational life and organizations are becoming more vulnerable to crises than before (Rosenthal, U., & Kouzmin, A., 1997). These trends suggest that any type of organization is in need to be ready for crises which call for organizational-based research in crisis communication scholarship.

### **Definition of Organizational Crisis**

Crisis communication scholarship has defined organizational crisis in many ways which well reflected the features of a crisis discussed in the previous section. Schultz, Utz, and Göritz (2011), for instance, defined organizational crisis as “a specific, unexpected and non-routine event or series of events that create high levels of

uncertainty and threaten an organization's high priority goals" (p.20). They highlighted unexpectedness and uncertainty of an event to be qualified as a crisis, which distinguishes distasteful problems that an organization might face in its routine business operations from a crisis. Similarly, Pearson and Clair (1998) defined organizational crisis as "a low-probability, high-impact event that threatens the viability of the organization and is characterized by ambiguity of cause, effect, and means of resolution (p.60)"

Ulmer et al. (2011) provided a more-detailed working definition of organizational crisis as a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and simultaneously present an organization with both opportunities for and threats to its high-priority goals (p.7).

All these definitions highlighted that a crisis is an unexpected, non-routine negative event which result in some type of loss in organization's operations.

Ulmer et al.(2011), however, stressed that a crisis can provide a turning point for an organization that can generate improvements if well managed.

Coombs (2007) provided a definition of a crisis in a business context and defined organizational crisis as "the perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization's performance and generate negative outcomes (p.2-3)." Here, Coombs highlighted perceived importance of stakeholders' perception of crisis in order to accurately understand crisis situations. This definition implies that a crisis is a more likely to be a perception than an actual accident which can turn out to be "reality" (Brown & White,

2011). Coombs also suggested that organizational efforts to communicate about a crisis with publics affect their post-crisis reactions.

### **Corporate Crisis Communication**

Corporate crises have been recognized as an interesting topic in academia and practice. Facing with uncertain and complicated business environments, more and more corporations are confronted with some kind of threat or disruption that could affect their normal operations. According to the recent survey of chief communication officers conducted by Weber Shandwick, a public relations firm, and executive search firm Spencer Stuart, more than seventy percent of the senior corporate communication professionals surveyed, reported that their companies experienced some kind of crises within the past two years (“Rising CCO”, 2012).

Correspondingly, crisis communication literature has paid attention to examining corporate crises. Yet, significant gap exists in crisis communication scholarship as most previous research focused on how corporations communicated with their publics in different phases of a crisis, mainly probing crisis responses. Although research on crisis communication is increasing, publics’ post-crisis reactions for corporate crises remain poorly understood. For instance, Coombs (2010) noted that what effect does crises have on publics’ attitudes, affects and behavioral responses which directly and indirectly affect organization’s reputation as well as profits (Coombs, 2010) are understudied. These notions suggest that additional research should investigate “relationship of the cost of crisis occurrences to a business operation” (Spillan, 2003, p. 168) and public-based approach to crisis communication (Kim & Cameron, 2011).

In an attempt to meet the needs of filling gap in crisis communication research, the current study intends to advance the literature on crisis communication by examining how publics' attitudes and behavioral intentions are shaped by corporate crisis responses. For this purpose, the current study proposes a theoretical framework, namely, situational crisis communication theory (SCCT). This framework describes how various situational and organizational factors shape publics' perceived organizational reputation during a crisis which in turn influences publics' attitudes behavioral intentions toward the organization.

The next section will briefly review the academic trends in crisis communication research followed by the literature on SCCT as a theoretical framework for the current study. Specifically, the literature will focus on the factors identified as affecting organization reputation and the publics' behavioral intentions to organizational crisis.

## **Theoretical Frameworks**

### **A Brief History of Crisis Communication Research**

According to Coombs (2010), crisis communication is defined as “the collection, processing, and dissemination of information required to address a crisis situation (p. 20)”. Over the past decade, crisis communication has received a great attention in the field of communication academia, offering an enormous body of research.

The initial approach to crisis communication was mostly done by practitioners, recounting cases they experienced and explaining the efforts made to manage the crises. Case studies were helpful for understanding what was effective for the specific type of crises, yet they were limited in its applicability. Case study driven approach was “simply descriptive” (Coombs, 2010, p.23) which lacks systematic framework to draw

accepted wisdom. In time, an advanced effort has been made through using analytic framework. Benson (1988), for instance, suggested a situational approach for crisis communication research. Before Benson, studies frequently recommended organizations to adopt accommodative strategies, such as apologia, in order to protect organizational assets (e.g., Benoit, 1995; Sellnow, Ulmer, & Snider, 1998). Another line of researchers, however, found that applying universal strategies can be challenging because each crisis has unique aspects such as legal, financial, and cultural factors (e.g., An, Park, Cho, & Berger, 2010; Fitzpatrick, 1995; Tyler, 1997), which should be taken into account in selecting specific communication strategies and action plans.

Such a descriptive and an atheoretical approach to crisis communication studies called for a theory-driven research in order to identify variables which potentially could affect organizational assets and to predict the relationships among those variables.

One of the initial theoretical approaches was Benoit's (1995) image repair discourse. Image repair analyzed a series of cases studies and provided recommendations for future crisis management, "frequently in the form of lists of "dos" and "don'ts" (Coombs, 2010, p.23)". The qualitative nature of case studies, however, still relies on author's interpretation and remains speculative which lacks predictive and causal inferences. Scholars suggested that scientific research requires evidence providing based on comparison and testing assumptions (e.g., Coombs & Schmidt, 2000). Those approaches relying on case studies and descriptive, therefore, are short on scientific process of evidencing which could limit our understanding of prescriptive function of crisis management.

In time, another line of research has advanced crisis communication research by building and testing theories, aiming to offer “generalizable findings and theoretical predictions (Kim & Cameron, p. 828)”. One of the notable efforts among them is the development of situational crisis communication theory (SCCT, Coombs & Holladay, 2002). As an alternative to case studies, SCCT applies attribution theory (Weiner, 1986, 1995) to crisis situations and identifies an array of crisis types and response strategies. More specifically, SCCT suggests that crisis response strategies should be decided upon the level of crisis responsibility that the organization is deemed to have and organizational reputational threat posed by the crisis.

For the effective crisis management, SCCT proposes two steps, (1) assessing the crisis situation and crisis response strategies, and (2) a system for matching the crisis situation and crisis response strategies. An analysis of crisis situation consist of assessing how stakeholders attribute responsibility of the crisis to the organization and organization’s past crisis history and prior relationships with stakeholders. Understanding stakeholders’ perceived organizational responsibility is central in SCCT because it determines what the organization is going to do for managing the crisis. Based on the assessment of the crisis situations, crisis managers are suggested to match the crisis strategies that meet stakeholders’ needs and the organization’s responsibility.

The next section will briefly review attribution theory followed by more details on Coombs’ situational crisis communication theory, one of the widely tested theories in crisis communication research (Cooley & Cooley, 2011)

### **SCCT’s Attribution Theory Roots**

As Coombs (2007) noted, the propositions suggested by SCCT is grounded in attribution theory. According to Weiner (1986), attribution theory assumes that people try to determine 'the causes' to interpret behavior or an event. When people encounter negative and unexpected events, such as crises, the efforts to search for the causes increase to identify who is responsible for the negative event. Such attribution affects how people perceive the event and affective and behavioral reactions to it. Attribution theory posits that emotion and behavior are consequences of the three causal dimensions:

Locus of control (internal vs. external) refers to whether an individual's behavior or an event is rooted in the individual or situational factors. Applying this notion to organization crises, the locus of control can be either internal or external depending on whether the crisis is perceived to be caused by the organization or to some parties outside the organization. If stakeholders attribute a crisis to organizational misdeed, the causal attribution would be internal, while if outside forces are found to be the root, such as with product tampering, the locus of causality would be external.

Controllability (causes one can control vs. causes one cannot control such as others' actions, etc.) refers to the degree to which an organization has control over its behavior or the event. Even if the concept of controllability is categorized separately from locus of causality, they are conceptually related. Empirical research also supports that there is a correlation between the locus of causality and controllability (e.g., Kent & Martinko, 1995). A crisis interpreted as being caused by internal factors is often perceived as an event that the organization should have been able to control the event.

On the contrary, when a crisis is perceived to be caused by some external force, people tend to believe that the organization has less control over the event's occurrence.

Stability (do causes change over time or not?) refers to whether the cause of the events or one's behavior "happens frequently (stable) or infrequently (unstable)" (Coombs, 2004b, p.272). Those causes that result in certain outcomes or behaviors over time and across situations are stable causes. Applying the notion of stability to crises, people will perceive past crisis history as an indicator of an organization's stability because past crises suggest a particular pattern of organization's operations. If the organization has consistently experienced certain type of crises, the current crisis will be understood as a part of "pattern (stable) rather than an isolated incident (unstable)" (Coombs, 2004b, p.272). Therefore, if the organization constantly showed a history of past crises, people will make stronger attribution for the current crisis to the organization.

### **Situational Crisis Communication Theory (SCCT)**

Coombs (2007) extended SCCT upon the attribution theory. Those three causal dimensions suggested by attribution theory determine attributions of crisis responsibility and emotions which serve as "motivations for action" (Coombs, 2007, p.166). When the attributions are internal, controllable and unstable, stakeholder perceives that the organization is responsible for the crisis. The goal of crisis communication, therefore, is to assess reputational threat. Organization reputational threat refers to "the amount of damage a crisis could inflict on the organization's reputation if no action is taken" (Coombs, 2007b, p. 166). The idea of "threat" was adapted from social-psychological attribution theory (Coombs, 2007). SCCT helps crisis managers choose crisis response

strategies that can change the publics' negative perception of the crisis to protect organization's assets, such as reputation.

SCCT consists of three core elements: 1) the crisis situation, 2) crisis response strategies, and 3) a systematic matching process between the crisis situations and crisis response strategies. The belief is that SCCT helps crisis managers can choose most appropriate response strategies by understanding the crisis situation through the matching system. The systematic matching process begins with understanding how publics perceive three attribution dimensions (i.e., locus of control, controllability and stability) because publics' perceptions determine the crisis situations.

While the crisis situations are less controllable for the organization, crisis response strategies are dependent on the organization's choice. Crisis response strategies are developed in an attempt to modify publics' perceptions of crisis responsibility. Therefore, the systematic matching of organizational factors to situational factors determines publics' attribution of crisis responsibility which shapes stakeholders' perceived organizational reputation. Understanding situational factors consists of identifying crisis types which is determined by stakeholders' attributions of crisis responsibility. Crisis responsibility can be intensified by the organization's poor prior relationships with the organization and the organization's prior crisis history. If the organization hasn't valued stakeholder relationships and has shown similar crisis history, stakeholders will deem more responsibility for the crisis to the organization. Therefore, more from organization's perspective, situational factors' are less controllable than organizational factors when a crisis breaks out. Organizational factor includes the strategic choice of crisis response strategies that match with the crisis type.

In order to mitigate the damage, the organization should demonstrate and implement crisis response strategies that meet the stakeholders' needs, involving how stakeholders physically and emotionally cope with the crisis and how the organization is going to take the responsibility.

SCCT investigates how stakeholders' attribution of crisis to the organization is intensified by crisis and relationship history. In addition, SCCT examines what is the best strategy that meets organization's crisis responsibility which in turn affects the outcome variable, such as stakeholders' affective and behavioral reactions to the organization. The propositions and the relationship among variables recognized in SCCT are guided by Figure 2-2.

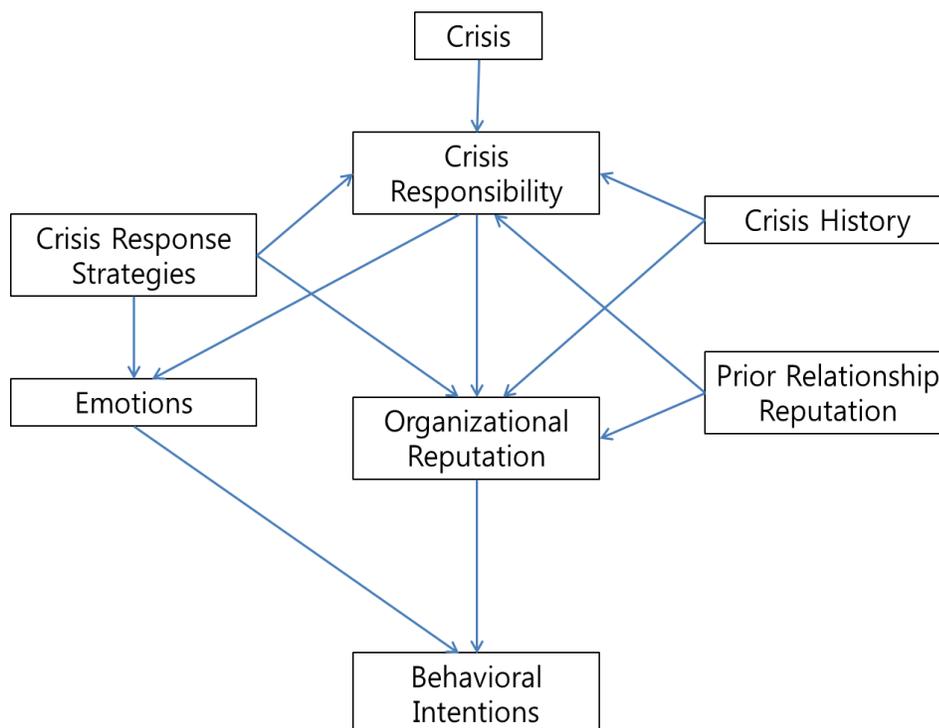


Figure 2-2. Situational Crisis Communication Theory Model (Coombs, 2007)

This section will examine the key variables identified in SCCT's propositions, including situational factors, organizational factors and public factors.

### **Three Situational Factors**

In assessing reputational threat, SCCT first recommends to evaluate three situational factors involving attributions of crisis responsibility, crisis history, and prior reputation. Among the three variables, Coombs (2007) suggested that crisis history and prior reputation are intensifying factors, because history of past crisis history and poor prior reputation can acerbate publics' evaluation of the attribution of the crisis responsibility. This section will discuss how situational factors influence publics' evaluation of organization reputation followed by organizational factors which involves the organization's identification of the crisis type and the choice of crisis response strategy that match with the crisis type.

### **Attributions of crisis responsibility**

Attributions of crisis responsibility refer to people's tendency to assign blame when searching for the causes of negative events (Weiner, 1985). Therefore, it is no surprise that research has continuously observed that the more stakeholders attribute responsibility to the organization for a crisis, the greater the organization experiences reputational threat. Furthermore, if an organization is believed to be blamed, stakeholders' perception of the crisis affects their emotional response toward, and future interactions with, the organization (Barton, 2001; Dowling, 2002; Nerb & Spada, 1997).

In sum, SCCT posits that how stakeholders attribute responsibility of the crisis determines their further emotions and behaviors toward the organization.

Therefore, SCCT recommends assessing the initial level of crisis responsibility to prescribe a specific set of crisis response strategies to answer for its deeds and to protect reputational assets.

SCCT suggests that each crisis type creates different level of crisis responsibility that stakeholders attribute to the organization. Stakeholders attribute more responsibility to the organization if the cause of the crisis is located internal than that found external. Research has continuously found that stakeholders' interpretation of crisis responsibility is negatively related to their evaluation of organization reputation (Coombs & Holladay, 1996, 2001).

### **Crisis history**

After determining initial crisis responsibility, SCCT recommends crisis managers to examine factors that could intensify stakeholders' perceived severity of the crisis. Intensifying factors involves an organization's crisis history and its prior relational reputation.

Crisis history refers to whether (similar) crises have been continuously experienced with the organization. If the organization has experienced similar crises in the past, the public will consider the organization to have ongoing problems, which is expected to be clearly addressed by the organization.

Studies have shown that a history of past crises intensified attribution of crisis responsibility and threatened the organization's reputation for human-error accidents and organizational misdeeds crisis types (see Coombs, 1998a; Coombs & Holladay, 1996). Continuing in this vein, another study confirmed that past crises mattered in publics' evaluating organization reputation. Coombs and Holladay (2001), for instance, compared three different conditions about crisis history including information specifying

no crisis history, a history of past crises and unknown condition (i.e., no information about crisis history) and examined how different conditions of crisis histories influence publics' perception of a crisis for a human-error crisis. Findings showed that a history of past crises negatively affected participants' attribution of crisis responsibility and evaluation of organization reputation. The results of the study also found Velcro effect. This study posited that there will be higher reputation threat and lower crisis attribution in no crises condition than in neutral condition. Findings, however, observed that there were no significant differences in attribution of crisis responsibility and organization's reputation threat between 'no crises history' and 'neutral' conditions.

Taken together, research supported that a history of past crises intensifies stakeholders' attribution of crisis responsibility to the organization as well as organization reputation threat.

These studies, however, are limited in its application as the effect of crisis history was only tested in one crisis cluster, namely intentional cluster which included human-error and the organization' misdeed crisis types. Little attempts have been made to examine how crisis history would affect publics' perception and evaluation of the organization for victim and accidental crises clusters. In order to meet the scholarly needs, Coombs (2004) examined the role of a crisis history in current crisis communication across different crisis type clusters. Specifically, he investigated the effect of past crises history in victim cluster (work place violence and product tampering crises) and accidental cluster (technical-error recall and technical-error accident. Coombs found that, regardless of crisis clusters, a history of a similar crisis in the past directly intensified reputational threat to the current crisis. That is, a crisis history

exacerbates the organization's reputation whether the current crisis arose from the organization's intentional misdeeds or the accident caused by outsiders.

### **Prior relational reputation**

Prior relational reputation refers to how well the organization has managed relationships with its stakeholders. One thing to note is that prior relationship is more like the matter of stakeholders 'perception' of how the organization has built the relationships with them. In other words, stakeholders may hold a poor relational view of an organization, despite the organization's efforts to treat them well.

As observed by Coombs (2004 a, b), both crisis history and prior relational reputation have direct and indirect effects on reputation threat. If an organization has a similar crisis history or is perceived to have poor prior relations with stakeholders, publics' evaluation of crisis responsibility to the organization increases. As a result, either factor has an indirect effect on organization reputation. In addition, both crisis history and prior relations reputation have a direct impact on reputation threat regardless of crisis responsibility.

### **Organizational Factors**

#### **Identification of crisis type**

Coombs (2007b) stated that crisis type refers to "how the crisis is being framed" (p. 166). Framing theory posits that the frame used to present or discuss a message can emphasize not only what an individual should think about, but also how to think about the issue (Entman, 1993).

Framing effects occur in a crisis situation because how the crisis is framed affects "how people define problems, causes of problems, attributions of responsibility and solutions to problems" (Coombs, 2007b, p. 167). Accordingly, defining crisis type

can be a form of frame because “each crisis type features certain aspects of the crisis” (Coombs, 2007b, p. 167). Crisis managers develop frames regarding a crisis including whether the crisis is caused by internal or external factors, which in turn affects how stakeholders should interpret the situation (Coombs & Holladay, 2002). Therefore, identifying crisis type can be a starting point for stakeholders in formalizing thoughts about where, and the extent to which, they should attribute responsibility.

Originally, Coombs (1995) adopted the concept of causal attribution from attribution theory and developed a 2 X 2 (Crisis attribution: internal-external X Crisis intentionality: intentional-unintentional) matrix, which resulted in four crisis types: 1) accident (internal—unintentional); 2) transgression (internal—intentional); 3) faux pas (external—unintentional); and 4) terrorism (external—intentional).

Later, Coombs and Holladay (2002) found that stakeholders’ perceptions of crisis responsibility play a crucial role in determining their post-crisis reactions, and suggested refined crisis types. The revised SCCT model categorized crisis types into three clusters.

Table 2-1. SCCT's Crisis Types and Definitions (Coombs, 2007)

Crisis Cluster	Crisis Types
Victim Crisis Cluster	<p>Natural disaster: Acts of nature that damage an organization such as an earthquake. Some environmental/weather event impacts the organization.</p> <p>Rumors: False and damaging information about an organization is being circulated. Evidence that the information is false.</p> <p>Workplace violence: Current or former employee attacks current employees onsite. An employee or former employee injures or attempts to injure current employees.</p> <p>Product tampering/malevolence: External agent causes damage to an organization. Some actor outside of the organization has altered the product to make it dangerous.</p>
Accidental Crisis Cluster	<p>Challenges: Stakeholders claim an organization is operating in an inappropriate manner. There is a public challenge based on moral or ethical, not legal, grounds.</p> <p>Technical error accidents: A technology or equipment failure causes an industrial accident. The cause of the accident is equipment/technology related.</p> <p>Technical error recalls: A technology or equipment failure causes a product to be recalled. A product is deemed harmful to stakeholders. The cause of the recall is equipment or technology related.</p>

Table 2-1 describes definitions of crisis clusters and crisis types identified for each cluster. They are (1) the victim cluster – both organization and stakeholders receive harm due to a crisis; therefore, the organization has very weak attributions of crisis responsibility and is viewed as a victim of the event (natural disasters, workplace violence, product tampering and rumor); (2) the accidental cluster – a crisis resulted from an organization's unintentional actions and, as a result, the organization is considered to have less controllability over the crisis and minimal crisis responsibility (technical-error accident, technical-error product harm and challenge); and (3) the intentional (or preventable) cluster – stakeholders are placed at risk due to a crisis that involves an organization's intentional and inappropriate actions; therefore, the

organization faces strong attributions of crisis responsibility (human-error accident, human-error product harm and organizational misdeed) and the event is considered purposeful (Coombs and Holladay, 2002).

Coombs (2007b) noted that identifying crisis type helps crisis managers anticipate “how much crisis responsibility stakeholders will attribute to the organization at the onset of the crisis” (p. 168). Therefore, crisis type determines the initial crisis responsibility that the organization is expected to take and identifies response strategies to manage the crisis.

### **Crisis response strategies**

The next step in assessing a crisis is to develop crisis response strategies that modify attributions publics make about organizational responsibility for a crisis.

Scholars continuously have shown that the crisis attribution has been evaluated more positively when the appropriate response strategies are adopted, as opposed to when improper strategies are used (e.g., Coombs, 1995). In addition to the attribution of crisis responsibility, the strategic choice of crisis responses positively shapes the organization’s outcomes such as images and impressions. Grounded in impression management literature, Allen and Caillouet (1994), for instance, argued that selecting crisis response strategies shares the same objective with impression management, attempting to form the way people perceive the organization which in turn influence organization’s reputation. Particularly, Allen and Caillouet (1994) suggested that organizations should strategically communicate with stakeholders in order to reestablish public legitimacy and repair the image damaged by a crisis. A body of research examined actual crises messages through content analysis to see what efforts were made to shape public’s perception of the organization. The notable contribution of

impression management to crisis research is that it has offered a broad array of strategies that were being used and evaluated the effectiveness of those strategies to protect organizations' images and reputation.

Based on additional research on crisis response strategies (Coombs, 1998, 1999a; Coombs & Holladay, 1996), the revised SCCT suggests that crisis responses should be chosen from a defensive—accommodative continuum, which depends on the causal attribution of a crisis. The emphasis of causal attribution in crisis management makes logical sense because people are likely to make causal attributions when they recognize an event to be important, negative, and unexpected—the traits of a crisis (Weiner, 1986). Coombs (1998) noted that understanding stakeholders' cognitive processing of a crisis helped researchers and practitioners “move beyond the limited strategies offered by apologia” (p. 179).

Based upon stakeholders' perceptions of crisis responsibility, SCCT addresses three categories of crisis response strategies into. First, the denial posture strives to remove any connections an organization has with a crisis. These include attacking the accuser, simple denial, and scapegoating. Second, the diminishment posture attempts to reduce attributions of organizational control and reduce negative effects of the crisis. These include excusing and justification. Third, the rebuilding posture attempts to improve the organization's reputation through taking some sort of responsibility. These include compensation and apology. SCCT also identifies a supplemental strategy, namely, the bolstering posture. The goal of this strategy is to build a positive connection between an organization and the public by showing support from the organization

toward its stakeholders. The bolstering posture includes reminding, ingratiation, and victimization. Table 2 summarizes crisis response strategies.

Table 2-2. SCCT's Crisis Response Strategies (Coombs, 2007)

Crisis Response Postures	Sub Response Strategies
Denial: Attempts to remove any connections an organization has with a crisis	Attacking the accuser; Simple denial, and Scapegoating
Diminishment: Strives to reduce attributions of organizational control and reduce negative effects of the crisis	Excusing and Justification
Rebuilding: Tries to improve the organization's reputation through taking some sort of responsibility	Compensation and Apology-
Bolstering: Seeks to build a positive connection between an organization and the public by showing support from the organization toward its stakeholders	Reminding, Ingratiation, and Victimization

### Matching process

SCCT suggests that evolution of crisis situational and organizational factors help crisis managers protect the organization's reputational assets by choosing the best crisis response strategies.

As previously explained, SCCT proposes three crisis clusters (victim, accidental, and preventable crises) upon crisis situations, and three postures of response strategies (deny, diminish and rebuilding strategies). The key propositions of SCCT's matching process are twofold, 1) the crisis types identified in each cluster will produce the similar level of crisis responsibility, and 2) crisis response strategies are used to protect organization's reputation which demonstrates different levels of organization's responsibility. SCCT suggests that crisis managers can apply the similar response strategies to address crisis types within the same cluster which will save the time for planning the crisis they encountered. Taken together, SCCT recommends that diminish

response postures are appropriate for the accident cluster crises and rebuilding postures for the preventable type of crises. For the victim cluster crisis, SCCT recommends using denial postures or instructing information only (Coombs, 2007).

The matching process has been further refined by recognizing the effects of emotion. The revised SCCT (as of 2007) acknowledged that understanding publics' emotions attached to the crisis helps in selecting crisis response strategies, because emotions are determined by publics' level of responsibility attributed to the organization (Coombs & Holladay, 2005). SCCT also holds that emotions should be taken into account in crisis management as it affects behavioral intentions toward the organization.

In sum, SCCT recommends crisis managers to first determine initial crisis responsibility in planning crisis communication. The next step is to identify intensifying factors that could reinforce stakeholders' perceived responsibility of the organization. Attribution of crisis responsibility is emphasized in crisis communication because it serves as motivation for eliciting certain emotions which leads to certain behaviors. Research has observed that stakeholder attribution of crisis responsibility is linked to affective and behavioral responses (McDonald & Härtel, 2000; Coombs & Holladay, 2005).

### **Public Factors**

**Emotions.** Stakeholders' emotions have been increasingly examined in crisis communication research as emotions affect stakeholders' subsequent attitudinal and behavioral reactions to the organization (e.g., McDonald, Sparks, & Glendon, 2010).

According to Jin (2009), emotion plays a significant role in public relations because stakeholders' emotions are enacted when they are communicating with an organization. Despite the increase in research on emotions, there has been few research that has examined the role of emotion, from audiences' (Linder, 2006; Oetzel & Ting-Toomey, 2006) and practitioners' perspectives (Yeomans, 2007). Research on emotions has been limited to identify types of emotions that are commonly elicited for crises (e.g., Choi & Lin, 2009).

Public relations scholars suggested examining the role of different types of emotions in understanding stakeholders' attitude and subsequent behavior tendencies during crisis situations (e.g., Choi & Lin, 2009a; Fediuk, Pace, & Botero, 2010; McDonald, Sparks, & Glendon, 2010;).

According to Lazarus (1991), emotion is defined as "organized cognitive-motivational-relational configurations whose status changes with changes in the person–environment relationship as this is perceived and evaluated (appraisal)" (p. 38).

Emotion affects perception of a crisis because our interpretation of the crisis is influenced by our emotional status attached to the crisis. For instance,

in their experiment study, Kim and Cameron (2011) revealed that emotionally framed news articles (anger vs. sadness) induced participants' emotions as the news frames affected their information processing (heuristic vs. systematic processing) which in turn influenced participants' evaluation of the company for a crisis situation. The authors observed that participants tend to show more negative attitudes toward the company if they are exposed to anger-based news articles than those who read sadness-inducing news stories. Besides, findings of the study demonstrated that those

subjects who read intensive emotional crisis response strategies (presence vs. absence) appeared in corporate news releases tended to show high corporate credibility, better corporate attitudes and more purchase intention of the company product. The findings of Kim and Cameron's study confirmed the proposition of SCCT in that emotions can affect behavioral intentions for an organizational crisis.

Research on emotion has suggested examining discrete emotions rather than overall feelings. In psychology, Lazarus (1991) said that people have their own ways in dealing with stressful situations. Therefore, emotional responses to stressful occasions such as conflicts or crises are varied and different. In public relations, Choi and Lin (2009a) found that even similarly valenced emotions such as anger, fear, anxiety and so forth result in different attitudes and behaviors tendencies for a product recall crisis. These suggest the need for explicating different types of emotion in crisis research (Garg, Inman, & Mittal, 2005).

Coombs and Holladay (2005) identified three types of emotions mostly emerged in conflict situations: sympathy, anger and schadenfreude (taking pleasure from other's pain). Using Integrated Crisis Mapping (ICM) model, Jin, Pang, and Cameron (2007) identified four negative emotions that are more likely to be evoked in crises: anger, sadness, fright, and anxiety.

Emotion driven research has observed that the arousal of emotions depends on the dimensions of certainty, self-controllability (the extent to which an individual' belief that he can control the situation) and responsibility (Slovic, 1987). For instance, Smith and Ellsworth (1985) found that uncertainty increases fear. On the other hand, anger is evoked when the certainty of and self-controllability of the situation increases. Lerner,

Gonzalez, Small, and Fischhoff (2003) also provided similar findings in that anger increases when certainty and self-controllability increase while fear decreases when certainty and self-controllability reduce. Jin (2010) found that predictability was essential in understanding stakeholder's emotional appraisals. She reported that anger was mostly evoked when predictability of the crisis was high. On the other hand, fright and anxiety was experienced when crisis predictability was low. Jin's findings can be associated with crisis types addressed by SCCT. As mentioned earlier, crisis type is defined by the locus of the event (internal vs. external) and organizational controllability over the crisis (high vs. low). In this vein, those crises identified as intentional crisis cluster (including human error accidents, human error recalls, and organizational misdeeds) are more likely to be predicted than those in victim cluster (including natural disaster, rumors, workplace violence, and product tampering). Therefore, intentional crises can result in more anger than victim type crises.

In SCCT, the combination of the locus and crisis controllability defines the attribution of crisis which is labeled as crisis responsibility. Crisis communication research suggested that anger increases when stakeholder attributes more responsibility of the crisis to the organization (Coombs & Holladay, 2005). That is, stakeholders can experience anger when they assume that the crisis could have been controlled in advance and prevented by the organization.

### **Expanding Situational Crisis Communication Theory (SCCT)**

#### **Trust**

So far, the current study explained variables that are posited by situational crisis communication theory (SCCT). At large, variables are classified and examined into

three factors involving organizational, intensifying and public factors. The goal of SCCT is to provide guidelines for crisis managers on how an organization should respond to a crisis. Crisis managers are first informed to analyze three above mentioned factors which should guide the strategic matching process between crisis situations and response strategies. Another goal of SCCT is to understand publics' reaction to the crisis which informs organizational post-crisis communication. Evaluation of three core factors of SCCT and matching process are used to repair the damaged reputation, to reduce adverse effects and to prevent negative behavioral intentions (Coombs, 2007). Therefore, as suggested by SCCT, the evaluation of publics' behavioral intentions serves to illuminate how well an organization responds to a crisis by making informed, strategic, and beneficial decisions.

Even if considerable attention has been paid to research on SCCT with regards to understanding publics' behavioral intentions, scholars in various disciplines have identified other variables that predict behavioral intentions which is worth for examining in a crisis situation. Those identified variables involve trust, reputation and attitudes. In addition to the identification on the links among these variables, there has been a call for more research on how social media works for "digitalized" publics (J. Grunig, 2009). Accordingly, the current study asks whether crisis response strategies delivered via various communication media might result in different consequences, such as publics' attitudes and behavioral intentions. To fill an existing gap in research and practice, the current study proposes to more thoroughly investigate the dynamics of crisis type, crisis responses and their impacts on publics' perceptions toward the an organization in a digitalized media environment for the following reasons.

First, trust plays an important role in many social and economic interactions where uncertainty and reliance are involved. Public relations scholars also suggested that trust is a core value in enhancing organization-public relationships which in turn affects positive behavioral intentions toward the organization.

Second, reputation has been recognized important in the academia as well as in the practice of public relations. Reputation, an organization's intangible asset, depends on its prior relationships with stakeholders (Hill, 2012), which affects an organization's outcomes such as return on investments (ROI).

Third, attitude is widely recognized as an antecedent that predicts behavioral intentions. For instance, behavior driven theories such as theory of reasoned action (TRA) and theory of planned behavior (TPB) suggest that one's behavior is best predicted from attitude and behavioral intentions.

In addition, following a review of the research, in some studies a positive relationship was found between trust and attitude of consumers (Hassanein & Head, 2007; Pavlou & Fygenson, 2006), attitude and behavior and trust and reputation. Although useful, previous studies have provided fragmentary associations among the variables and a comprehensive model that outlines the linkage among the aforementioned variables has yet to be fully developed.

Therefore, the current study aims to advance SCCT by examining how the strategically decided response strategies might affect publics' affective, attitudinal and behavioral outcomes especially for different types of crises.

In an attempt to expand the existing theory of crisis communication, this section discusses newly added variables, i.e., trust, reputation, attitude and behavioral

intentions, which are examined in the context of SCCT. Then, the linkage among the variables are provided.

In order to discuss trust, this study first explains organization-public relationships in which trust has been identified as a core value.

In public relations, trust has been examined in the context of organization-public relationships. Hon and J. Grunig (1999) asserted that public relations contributes to building and maintaining good relationships between an organization and its key publics. According to literature in public relations, quality relationships elicit better organizational outcomes such as reputation. A positive relationship is also found to shape positive attitudinal and behavioral intentions among publics. Since Hon and J. Grunig's emphasis on quality relationships in public relations, research has observed that good relationships result in positive outcomes such as organizational trust.

Trust is defined as one party's level of confidence in and willingness to open oneself to the other party (Hon & J. Grunig, 1999). Therefore, trust is a critical factor that might shape publics' further attitudes and actions toward an organization especially during a crisis situation. Therefore, publics' trust should be understood in the context of organization-public relationships.

Although the term, relationships, is overused in the domain of public relations and in other areas of research, its definition is not clearly delineated. Public relations scholars especially have continuously acknowledged the weak conceptualization of relationships. For instance, Dr. Broom (2000), who is professor emeritus at San Diego State University and co-author and author of the last five editions of *Effective Public Relations*, the definitive textbook used in public relations courses, said that "even

though the public relations function builds and maintains organizations' relationships with publics, we found few definitions of such relationships in public relations literature" (p. 3).

In order to precisely define organization-public relationships, it is logically makes sense to conceptualize public first. Then the definition of organization-public relationship (OPR) will be provided.

### **Definition of a public**

Scholars pointed out that the terms publics are often used synonymously with other terms, such as stakeholders, that both refer a group of people in public relations literature (J. Grunig & L. Grunig, 2000; J Grunig & Repper, 1992). However, there is a subtle distinction between the two.

"Stakeholders" are a group of people who are linked to the organization because of the consequences of the organization's operations or stakes (Clarkson, 1991; Coombs, 2000; Daft, 2001; Freeman, 1984; J. Grunig & L. Grunig, 2000; J. Grunig & Repper, 1992; Wood, 1991). J. Grunig and L.Grunig (2000) defined stakeholders as "those who are affected by decisions of an organization, or those who affect the organization by their decisions" (p. 312). Daft (2001) also provided a similar definition of a stakeholder as "any group within or outside an organization that has a stake in the organization's performance" (p. 30). Theses definitions imply that stakeholders are connected to the organization because they have mutual consequences with the organization (J. Grunig & Repper, 1992).

While stakeholders refer to a group of people who have interdependence with an organization, publics refer to people who are engaged in more active interactions with

an organization (J. Grunig & L. Grunig, 2000; J Grunig & Repper, 1992). J. Grunig and Hunt (1984) defined a public as “a group of people who face a problem, are divided on its solution, and organize to discuss it” (p. 145). In this sense, people become stakeholders of an organization due to stakes they have each other and stakeholders develop to publics as they show more active interactions with an organization in an attempt to deal with a problem (Grunig & Huang, 2000; Grunig & Hunt, 1984). Accordingly, publics are emerged based on their situations especially when they face a problem (Vasquez & Taylor, 2001). Blumer defined a public “as a group of people who 1) are confronted by an issue, 2) are divided in their ideas as to how to meet the issue, and 3) engage in discussion over the issue” (p. 143). Similarly, Dewey defined a public “as a group of people who 1) face a similar problem, 2) recognize that the problem exists, and 3) organize to do something about the problem” (J. Grunig & Hunt, 1984, pp. 143-144).

J. Grunig and Repper (1992) provided a clear distinction between stakeholders and publics as follows:

People are stakeholders because they are in a category affected by decisions of an organization or if their decisions affect the organization. Many people in a category of stakeholders—such as employees or residents of a community—are passive. The stakeholders who are or become more aware and active can be described as publics (p. 125).

In sum, J. Grunig and Hunt (1984, p.144) concluded that “active behavior is the key” the characteristics of publics. Rhee (2004) also said that publics and stakeholders should be distinguished in research because publics are characterized with their active communication behaviors that are sought to find solutions for a problem. In terms of research, Rhee (2004) added that publics should be examined within “organization-

public relationship building” because they continuously and repeatedly communicate with an organization especially when a problem emerges. J. Grunig and Repper (1992) also provided suggestions for future research in that the distinction between the two terms is needed in public relations because it helps “to understand the strategic planning of public relations” (p.125).

### **Definition organization-public relationships**

The concept of relationship management was first advocated by Ferguson (1984). She noted that the field of public relations was atheoretical and declared that the paradigms of public relations should shift to relationship management in order for public relations to be theory driven discipline. Since Ferguson’s seminal suggestion for relational approach, public relations scholars have sought to develop relationship management as a theoretical model both in research and practice. Over the past two decades, relationship management has been one of the most widely tested theories in public relations research. For instance, reviewing major peer-reviewed journals in public relations, Ki and Shin (2006) reported that more than 40 scholarly papers that have investigated with relationship management theory have been published in referred journals.

Organization-public relationships have been defined in two different ways. While one approach focused more on ‘process of relationship formation’ between an organization and its publics, the other emphasized ‘relational outcomes’ which are resulted from the on-going relationships between an organization and its publics.

Regarding OPR as process formation, definitions of OPR reflect the views of interpersonal communication. From an interpersonal communication perspective,

relationship was defined as “interdependence of two or more people” (O’Hair, Friedrich, J. Wiemann, & M. Wiemann, 1995, p.10). In public relations literature, the concept of interdependence is expanded to the organizational level and is more precisely explained in defining organization-public relationships as process formation. Broom, Casey and Ritchey (2000), for instance, defined public-organization relationships as “the patterns of interaction, transaction, exchange, and linkage between an organization and its publics” (p.19). Drawing upon these definitions, Coombs (2000) related the concept of interdependence to stakeholder theory and pointed out that people engage in relationships based on their needs for interdependence with one another.

Huang (1997), on the other hand, conceptualized organization-public relationship as outcomes. In her doctoral dissertation, Huang examined relational outcomes in the context of conflict management and provided the constructs of relational outcome measurement. She suggested that the construct of organization-public relationship consists of four indicators – control mutuality, trust, commitment and satisfaction, implying that the concept of relationship consists of more than one fundamental feature. Based on her suggestions for construct of OPR, Huang (1998) later defined organization–public relationships as “the degree that the organization and its publics’ trust one another, agree on that one has rightful power to influence, experience satisfaction with each other, and commit oneself to one another” (p. 12).

### **OPR measurement**

Despite the concept of relationships has been essential since its birth in public relations research as well as in practice, there is no agreed measurement scale for evaluating relationships. For instance, J. Grunig and Huang (2000) pointed out that “neither scholars nor practitioners have defined the concept carefully or have developed

reliable measures of relationships outcomes” (p.25). Broom and Dozier also admitted the complexities in defining and measuring organization-public relationships as,

Conceptually, public relations programs affect the relationships between organizations and their publics, but rarely is program impact on the relationships themselves measured. In practice, impact measures are made on one or both sides of relationships and then inferences made-sometimes explicitly, usually implicitly-about how the relationships changed (pp.82-83).

Ledingham and Bruning (1998, 2000) provided five indicators of relational outcomes including trust, commitment, openness, investment, and involvement. J. Grunig and Huang (2000) suggested four indicators of organization-public relationships that include satisfaction, commitment, control mutuality and trust.

Reviewing literature on organization-public relationships, Huang (2001) noted that J. Grunig and Huang’s four dimensions of organization-public relational outcomes consistently have been examined in public relations scholarship (e.g., Hong & Yang, 2011; Huang, 2008; Jo, 2003; Jo & Kim, 2003; Kang & Yang, 2010; Ki 2013; Sung & Yang, 2009; Yang, 2007; Yang & J. Grunig, 2005), and that these indicators feature the core of OPR. A brief definition of each indicator is described in the following.

**Trust.** Trust is defined as the level of confidence that both parties have in each other and their willingness to open themselves to the other party.

**Satisfaction.** The extent to which both parties feel favorably about each other because positive expectations about the relationships are reinforced.

**Commitment.** The extent to which both parties believe and feel that the relationship is worthy spending energy on to maintain and promote.

**Control mutuality.** The degree to which parties agree on who has the rightful power to influence one another.

## **Role of relational trust in a post-crisis communication**

Among the six indicators, research has continuously found that not all the OPR dimensions are indicative in predicting organization-public relationships. Ki and Hon (2007) suggested examining OPR in various contexts to understand which indicators best predict the relationships in certain circumstances. Ki and Hon added that the strongest indicators of relationships may vary depending on the participants resulting in different types of relationships. For example, some scholars have found that satisfaction predicts customer-organization relationships (Hong & Yang, 2011) and control mutuality is indicative of attitudinal and behavioral outcomes in the university-student relationships settings (Bruning, 2002; Ki & Hon, 2007; Sung & Yang, 2009). Even within the similar setting, however, control mutuality was one of the weakest predictors of the OPR when the subjects of the study involved not only by students but also administrators of the university (Hon & Brunner, 2002).

Ki and Hon (2007) noted that some relationships indicators, such as control mutuality, are less predictive “where there is no direct contact or face-to-face communication with an organization’s management (e.g., many consumer company OPRs). This implies that more research is needed to examine how relationship indicators might vary depending on publics and organizations studied in understanding their relative influence on attitudinal and behavioral outcomes for a corporate crisis.

In this vein, the current study aims to focus on the role of trust in a post-crisis communication.

Trust has been widely studied across different disciplines including interpersonal relationships (Canary & Cupach, 1988; Larzelere & Huston, 1980; Millar & Rogers, 1976), risk communication (McCallum, Hammond, & Covello, 1991; Trumbo &

McComas, 2003), relationship marketing (Anderson & Narus, 1990; Morgan & Hunt, 1994), and organizational-public relationships (Becerra, 1998; Bruning & Ledingham, 1999; Huang, 1997, 2001; Jo, 2003; Jo & Kim, 2003; Ledingham & Bruning, 1998).

Despite the burgeoning growth of study on trust, scholars have said that the concept of trust is complicated to define. Burgon and Hale (1984), for instance, noted that

Trust includes both 'trusting' behaviors (indications of one's vulnerability and dependence) and 'trustworthy' actions (indications that one will not exploit another's vulnerability and will not betray the trust that one is given). It entails the qualities associated with the character of credibility—sincerity, dependability, honesty, respect, and the like. (p. 205)

At the level of interpersonal relationships, Canary and Cupach (1988) defined trust as "a willingness to risk oneself because the relational partner is perceived as benevolent and honest" (p. 308). Others highlighted one's affect in defining trust. Ledingham and Bruning (1998) conceptualized trust as "... trust essentially refers to a feeling that those in the relationship can rely on the other.

In relationship marketing, Morgan and Hunt (1994) conceptualized trust "as existing when one party has confidence in an exchange partner's reliability and integrity" (p. 23). Moorman, Deshpande, and Zalman (1993) emphasized the behavioral intention of "willingness," and defined trust as "a willingness to rely on an exchange partner in whom one has confidence" (p. 82).

From the public relations perspectives, Hon and J. Grunig (1999) defined trust as "one party's level of confidence in and willingness to open oneself to the other party" (p. 19). Despite the complicated nature of trust, one's willingness to take a risk for the

relationships with the relational partner can be summarized as a common nature of defining a relational trust.

Research on relational trust has identified several denominators that have been used in measuring the concept of trust which involves dependability, forthrightness, trustworthiness, sincerity, honesty, respect, and benevolence (Burgon & Hale, 1984; Canary & Cupach, 1988; Ledingham & Bruning, 1998).

In the domain of public relations, Hon and J. Grunig (1999) provided operationalization of relational trust that involves three underlying dimensions, integrity, dependability and competence. This operationalization has been widely used in public relations scholarship (e.g., Ki & Hon, 2007; Yang, 2007, Yang & Lim, 2009). Based on Hon and J. Grunig's definition, current study defines the three dimensions of relational trust as follows in the context of organization-public relationships:

Integrity refers to "the belief that an organization is fair and just" (p.19). Integrity involves such characteristics as honesty, discreetness, confidentiality, and concern or care for relational partners. One will perceive that the organization has the integrity if it meets ethical standards in achieving organizational goals and objectives (Gabarro, 1978; Larzelere & Huston, 1980; Mishra, 1996; Moorman, Deshpande, & Zaltman, 1993; White, 2005)

Dependability refers to "the belief that an organization will do what it says it will do" (p. 19). Schlenker and his colleagues (1973) added that "A promise who did not back up his words with corresponding deeds soon would be distrusted" (p.420). One will perceive that the organizational is dependable and reliable if the organization shows consistency in its acts and words (Gabarro, 1978; Mishra, 1996; Pearce, 1974).

Competence refers to “the belief that an organization has the ability to do what it says it will do” (p. 19). One will perceive that the organization is competent if the organization demonstrates technical skills, expertise, and timeliness (Moorman et al., 1993; Gabarro, 1978; Butler, 1991; Mishra, 1996; White, 2005) in completing its duties and obligations (Huang, 2001).

In defining trust, others have emphasized different aspects. Following the definition of Holmes (1991) who defined trust at the interpersonal level, Lee (2005) viewed trust as the overall perception of another party whether the party is worth for trusting. Lee measured trust as whether the other party is confident, reliable, and trustworthy.

In the context of public relations, trust has been found to be an important indicator of organization-public relationships. For instance, Huang (1997) found that trust and control mutuality are two core indicators that represent organization-public relationships. Canary and Cupach (1988) also emphasized the value of trust in relationship building in that “...trust appears to be essential to the promotion and maintenance of a relationship, whereas suspicion undermines such growth” (Larzelere & Huston, 1980)” (p. 308). Specifically, literature on public relations and marketing has acknowledged that trust is an important indicator of customer-organization relationships (e.g., see Claro, Hagelaar, & Omta, 2003; Crosby, Evans, & Cowles, 1990; Dion, Easterling, & Miller, 1995; Hult, Ferrell, Hurley, & Giunipero, 2000; Jeffries & Reed, 2000; Kothandaraman & Wilson, 2000; Miyamoto & Rexha, 2004; Payne, Holt, & Frow; 2001; Perrien, Paradis, & Banting, 1995; Shore & Barksdale, 1998).

In addition, due to the changes in media environments, scholars emphasized that public relations efforts should be examined in the context of outcomes such as relational trust, instead of technical outputs (e.g., Yang & Lim, 2009). In this regards, trust has been investigated especially in relations with media credibility. As the media environment changes from print to online, scholars have examined how different information sources delivered online might lead publics' cognitive and behavioral intentions. Jo (2005), for example, examined how the news media credibility exerts viewers' perceived relationships. Specifically, he looked at how online information from different media sources (traditional news sources vs. news releases) might affect respondents' perceived trust relationships among college students. Findings showed that subjects perceive traditional news information more trustworthy than news releases and traditional news was found to elicit more trustful organization-public relationships.

## **Reputation**

### **Definition of reputation**

Fombrun (1996), an editor of Corporate Reputation Review and founder of the Reputation Institute, defines corporate reputation as "the overall estimation in which a particular company is held by its various constituents" (p.37). More specifically, Yang (2003) quoted the Fombrun's definition of reputation from the website of the Reputation Institute and provided the definition of reputation as:

A cognitive representation of a company's ability to meet the expectations of its stakeholders; reputation describes the rational and emotional attachments that stakeholders form with a company; and reputation describes the net image a company develops with all of its stakeholders (Yang, 2003, p.75).

J. Grunig and Hung (2002) defined reputation as “the distribution of cognitive representations that members of a collectivity hold about an organization, representations that may, but do not always, include evaluative components” (p.20).

Reviewing the definitions of organizational reputation, the common nature of reputation is cognitive representation that is held by diverse publics.

Reputation management literature suggested that uniqueness and distinctiveness of the organization that distinguishes it from other organizations forms how a public perceives about the organization’s reputation (Fombrun & Shanley, 1990; Dye, 2000).

### **Reputation and related terms**

Just like crisis is overused, as are the synonym for problem, issue or risk, the term, reputation is used to refer meanings related terms.

Some scholars suggest that the concept of reputation emerged from other related concepts, such as image and personality. Caruana and Chircop (2000), for example, noted that “research on corporate reputation is rooted in earlier work on corporate image, corporate identity and personality” (p.43). According to Caruana and Chircop, corporate reputation emerges from the corporate images and is related to corporate brand equity. Pruzan (2001) also emphasized the interconnectedness of the related terms in understanding reputation. Pruzan said that corporate reputation is shaped in the sense of organization images held by various publics’ evaluation of corporate behaviors and results.

Others, on the other hand, suggested distinguishing reputation from other related terms. ”For instance, Bromley (2000) discussed the differences of identity, image, and reputation, specifically in terms of “who’s perception” is emphasized in defining each

term: “Identity is defined as the way key members conceptualize their organization, image is defined as the way an organization presents itself to publics, especially visually, and reputation is defined as the way key external stakeholder groups of other interested parties actually conceptualize that organization” (p.241).

J. Grunig and Hung (2002) concluded that those related terms, such as reputation, brand and image basically refer to same phenomenon, which is publics’ “cognitive representation” of an organization, while identity denotes what an organization thinks of itself.

## **Reputation measurement**

### **Quantitative measurement of reputation**

Review of previous studies on reputation has revealed that a couple of scales have been used in measuring the concept of reputation.

One of the widely used instruments in evaluating perceived reputation is Fortune magazine’s annual reputation index. Fortune magazine’s annual index is measured by CEOs and analysts’ evaluations on the following areas including the most socially responsible organization, most desirable organization, most environment-friendly organizations and so forth. Although widely used, scholars have raised questions on the validity of Fortune magazine’s annual index because it relies on the internal members of an organization and does not reflect the external publics’ perceptions on the organizational reputation (Brown & Perry, 1994; Fryxwell & Wang, 1994; Kioussis, Popescu, & Mitrook, 2007). In addition, some criticized that Fortune magazine’s index is a compilation of predetermined organizational reputation attributes (Sobol, Farrelley, & Taper, 1992) and therefore it does not help define what an organizational reputation is (Lyon & Cameron, 2004).

In order to provide how a general public evaluate the reputation of an organization, the Harris-Fombrun Reputation Quotient (Fombrun, Gardberg, & Sever, 2000) was developed.

This quotient has six dimensions with subsequent 20 attributes:

1. Emotional appeal - whether the stakeholder has a good feeling about the company; admires and trusts the company.
2. Products and services - whether the company stands behind products/services, offers high quality products/services; develops innovative products/services; offers products/services that are good value.
3. Vision and leadership - whether the company has excellent leadership/ has a clear vision for the future, recognized /takes advantage of market opportunities.
4. Work place environment - is well managed / looks like a good company to work for / looks like it has good employees.
5. Financial performance - Record of profitability / looks like a low risk investment/ strong prospects for future growth / tends to outperform its competitors.
6. Social responsibility - supports good causes / environmentally responsible, treats people well.

This measure also has been widely used as a valid measurement in evaluating university-student relationships (Sung & Yang, 2009) and consumers' perceived reputation toward a food company (Hong and Yang, 2011).

Sung and Yang (2009) used the Harris-Fombrun Reputation Quotient to measure university reputation held by students. The data was collected via survey in South Korea. The measurement scale resulted in the four dimensions of academic reputation

with 11 measurement items. Among the eleven items used, seven items were adapted from the Harris-Fombrun Reputation Quotient which includes two “emotion” items and five “university management” items. Four items were added to measure “perceived media reputation” (2 items) and “perceived academic reputation” (2 items).

Hong and Yang (2011) measured an organizational reputation from an actual food company. Hong and Yang collected data from the customers of Wegmans Food Markets, Inc. in the greater Syracuse, NY area. A purposely chosen sample who are available customers of Wegmans Food Markets, Inc. were asked to complete a paper survey. The researchers used the Harris-Fombrun Reputation Quotient which resulted in 12 items with three dimensions ( $\alpha = .93$ ).

Gardberg and Fombrun (2002) modified the Harris-Fombrun Reputation Quotient and provided a valid measurement scale, the reputation quotient index by Harris Interactive and the Reputation Institute was developed. This index is used to evaluate a general public's perception of the most visible corporations in the United States and Europe across six attributions of corporate reputation. The attributions include social responsibility, emotional appeal, vision and leadership, products and services, workplace environment, and financial performances. Each dimension refers to as follows:

1. Emotional Appeal: How much the company is liked, admired, and respected.
2. Products & Services: Perceptions of the quality, innovation, value, and reliability of the company's products and services.
3. Financial Performance: Perceptions of the company's profitability, prospects, and risk.

4. Vision & Leadership: How much the company demonstrates a clear vision and strong leadership.
5. Workplace Environment: Perceptions of how well the company is managed, how it is to work for, and the quality of its employees.
6. Social Responsibility: Perceptions of the company as a good citizen in its dealings with communities, employees, and the environment.

In public relations, the reputation quotient index by Harris Interactive and the Reputation Institute has been extensively used in understanding the linkage between public relations efforts and outcomes. For instance, Kiousis and his colleagues (2007) supported agenda-building and agenda-setting theories by investigating the linkage among public relations materials, media coverage, financial performance and publics' perceived reputation for 28 companies in the United States from the annual Harris Interactive (2005).

More recently, Lee and Park (2013) adapted Harris Interactive reputation quotient to an experiment setting to measure the effect of public relations message interactivity on organizational reputation. Lee and Park manipulated different message interactivity appeared on corporate Websites and blogs for the four actual companies that has similar reputations. Of the six dimensions that constitute corporate reputations, the four dimensions were assessed, including emotional appeal, products and services, vision and leadership and workplace environment.

### **Qualitative measurement of reputation**

Although quantitative measurement index has been popular in evaluating organizational reputation, some scholars suggested using qualitative approach in

measuring organizational reputation. Bromley (1993) and J. Grunig and Hung (2002), for instance, pointed out that that open-ended questions help better elicit an individual's cognitive representation of an organization. They argue that although convenient in coding the data, participants in close-ended questions might face possibilities of forcibly answering the questionnaires that are imposed by the researcher. On the other hand, open-ended questions allow participants freely provide their opinions on the questionnaires (Bromley, 1993).

In order to increase the validity of the measurement, this qualitative approach follows two steps in gathering data. According to Yang (2007), respondents are instructed 1) to list up to four different thoughts, and 2) to report valence of each thoughts listed (as non-evaluative, negative, or positive) as well as overall judgment of the entire thoughts listed. As opposed to measuring the overall personal judgment in close-ended questions, open-ended question items allow to produce the variable of "net positive representations." This variable is produced by calculating the number of positive representations less the number of negative representations in a given answer. In addition to a respondent's direct experience with an organization, scholars suggested that some people depend on the media reputation, especially those who have less direct experience with the organization, in shaping their organizational reputation (Bromley, 1993; Deephouse, 2000; Rindova & Kotha, 2001). The media reputation is measured by the following question: "Please indicate how positively you think the mass media, in general, rate the following organization these days."

Grounded in the qualitative approach, Yang (2007) used open-ended questions in his survey which examined the effects of organization-public relationships on

reputation. In order to cross-validate the proposed model, four organizations in each field were selected which include Samsung Electronics, Sony, the Korean Red Cross and Korea Football Association. In addition to measuring media reputation mentioned above, Yang asked open-ended questionnaire used in previous studies (e.g., Bromley, 1993; J. E. Grunig & Hung, 2002) to measure of each participant' cognitive representation of the organization, which reads: "In a few phrases, please tell me what comes to mind when you think of the following organization."

The purpose of the current study is to examine the linkage among crisis responses, relational outcomes, organizational reputation, and attitudinal and behavioral outcomes in a food product recall crisis. In order to meet this end, the current study uses the Harris Interactive reputation quotient in measuring organizational reputation.

### **Antecedents of organizational reputation**

Reputation has been investigated in various contexts using diverse methodologies. Lee and Park (2013) examined how public relations messages that have different interactivity (high vs. low) which are communicated via different channels (Website vs. blog) might affect reputation in an experiment setting. Results of the study indicated that while high interactivity message lead to better reputation, communication channel showed no significant effects on public's perceived organizational reputation.

Measuring student-university relationships, Sung and Yang (2009) examined how communication and educational experiences of students might affect their perceived reputation of the university attending. While students' communication behavior had a positive and significant effect on reputation, their educational experience with the university did not show a significant effect on students' evaluation of the university's reputation.

## **Attitudes and Behavioral intentions**

### **Attitudes**

In public relations, scholars suggested that publics' attitude and behavioral intentions are key outcomes of public relations efforts (Ki & Hon, 2009). Although useful, little studies have examined the interplay among public relations efforts, publics' attitude and behavior intent in one model (e.g., Ledingham & Bruning, 1998) which call for further research to fill this gap by empirical examination of those variables (Ki, 2013).

Researchers have established a definition of attitude. According to Fishbein and Ajzen (1975), attitude is defined as "a function of his/her salient beliefs at a given point in time" (p.222). Rosenberg and Hovland (1963) defined attitude as "predispositions to respond in a particular way toward a specified class of objects" (p.1). Eagly and Chaiken (1993) said that an attitude is "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1). Fishbein and Ajzen (1975) also added that attitude is "a learned predisposition to respond in a consistently favorable or unfavorable toward the object" (p.6). In general, attitudes can be understood as a public's overall evaluation of the objects (Mitchell & Olson, 1981).

Although different in some ways, those definitions denote two aspects of attitude: 1) attitudes drive one's further responses/actions toward objects and 2) such responses are demonstrated in a favorable or unfavorable manner. Yet, as Lindenmann (2002) pointed out, attitude is an exhaustive concept that measures what publics say, think (cognitive aspects), feel (affective aspects), and inclined to act (behavioral intentions) which calls for further research to elaborate its function.

In fact, scholars have established theoretical foundations that propose hierarchical links of attitudes and behavioral intentions.

Weiner's attribution theory posits that one's judgments about the cause of the event lie in the dimensions of locus of control, stability, and controllability (Weiner 1986). Weiner said that these three causal dimensions collectively generate one's emotions and attitudes, which in turn affect one's behavior. Another line of research that has been devoted to identify the attitude-behavior relationship is the development of the theory of reasoned action (TRA), provided by Ajzen and Fishbein (1980).

According to TRA, attitude is defined as one's evaluation as to whether the behavior is favorable or unfavorable. TRA proposes that behavior is best predicted from behavior intentions, which are affected by the individual's attitude towards performing the behavior.

According to Perloff (2008), behavioral intentions refer to one's "intention to perform a particular behavior, a plan to put behavior into effect" (p.92).

The notion that attitude shapes behavioral intent has been well supported in the marketing research in areas such as brand loyalty (Auh, Bell, McLeod, & Shin, 2007), on-line advertising (Karson & Fisher, 2005), and self-service technology adoption (Curran, Meuter, & Surprenant, 2003), purchase intention (e.g., Tsai, Chin & Chen, 2010).

In addition, the theory of reasoned action has been widely tested in predicting behavior intentions and actual behaviors in many different realms such as health behavior (e.g., Morrison, Mar, Wells, Gillmore, Hoppe, Wilsdon, Murowchick & Archibald, 2002), education (e.g., Chen & Chen, 2006), and voting behavior (e.g., Glasford, 2008).

Predicting health-related behavior, Morrison et al., (2002) found positive links between attitude and intention to engage in drinking among school-age children. While TRA originally suggests that all predictors of actual behavior work only through behavior intention. Morrison et al.'s study observed that behavior is not only indirectly influenced by cognitive activity of intention but also directly affected by one's perceived social expectations. That is, subjective norm (i.e., one's perceived norm of what his significant others want him to do) affect one's actual behaviors such as purchase without the mediation of behavioral intention.

The path between attitude and behavior has been extensively tested across the social sciences. In political communication, Ajzen, Timco, and White (1982) found that attitude and subjective norm predicted young adults' voting intentions as well as actual voting behaviors in the 1980 presidential election. In the voting domain, those behavioral models, such as TRA and the theory of planned behavior (TPB), has received supports for its predictability of voting behaviors across different populations (e.g., Bowman & Fishbein, 1978; Netemeyer & Burton, 1990; Singh, Leong, Tan, & Wong, 1995).

In the realm of education, Chen and Chen (2006) probed the link between attitude and behavior intent to explain University faculties' intention to teach online courses in Taiwan. The findings of the study found that behavioral attitudes and subjective norm predicted faculties' intention to participate in teaching online courses which confirmed the propositions of TRA.

### **Purchase intention**

Behavior driven theories such as theory of reasoned action and theory of planned behavior suggested that behavioral intention is a reliable predictor of actual

behavior (e.g., Ajzen, 1991; Fishbein & Ajzen, 1975). Moreover, behavioral intent is suggested to be in accord with actual behavior because one's social behavior is under the individual's control (Perloff, 2008).

TRA has been applied to marketing to understand consumer behavior. Tsai, Chin and Chen (2010) tested TRA to explore consumers' intention to buy nutraceuticals. Findings indicated that attitude and subjective norm enhanced a consumer's intention to purchase nutraceuticals. In addition, this study observed that subjective norm affected a consumer's attitude without the mediating effects of intention.

Although the hierarchical links between attitude and behavior intent have been observed in different realms, two crisis studies did not observe this association. In 1996, Jorgensen applied Weiner's attribution theory to examine how consumers' attributions following an organization's crisis might affect consumers' feelings, attitude and behavioral intent. When consumers find that a crisis was caused by the organization (internal/controllable), they showed greater anger and expressed higher levels of punitive intent. As attribution theory suggested, the locus of control and controllability affected consumers' feelings (such as anger) and behavioral intentions (punitive intent). Yet, Jorgensen's study showed only partial support for Weiner's theory. While emotions affected behavioral intentions, attitudes failed to predict behavioral intentions. Lee (2005), who explored how airline passengers' attitude lead to purchase intention toward the airline company which experienced airline crash, also found no path from attitude to re-purchase intent.

### **Word-of-mouth (WOM)**

Research has suggested that word-of-mouth is one of common communication behaviors of customers which affects an organization's growth revenue (e.g., Aaker,

1991; Godes & Mayzlin, 2004; Gremler, Gwinner, & Brown, 2001). According to Harrison-Walker (2001), word-of-mouth communication is defined as, “informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service” (p. 70).

Even earlier, Katz and Lazarsfeld (1955) argued that WOM is more powerful than mass media in shaping one’s attitude and behavior intent. This argument has been supported by subsequent studies. For instance, Day (1971) empirically tested that WOM is nine times more effective than advertising in changing negative attitudes to positive ones. Compared to information from print media, Herr et al., (1991) showed that WOM had stronger influences on product judgments which lead to forming attitudes toward the product.

Although research on WOM has a long history dating back to 1950s, Hong and Yang (2009) noted that most of the studies spotlighted WOM and its association to product related attributes, which leaves a room for further examining how organization related attributes would influence WOM. The current study aims to fill this gap by empirically examining the relationship between organizational attributes, such as reputation, OPR and publics’ intent to engage in WOM in a crisis context.

According to Brown, Barry, Dacin, and Gunst’s (2005), positive WOM is defined as “making others aware that one does business with a company or store, making positive recommendations to others about a company, extolling a company’s quality orientation, and so on” (p. 125). As such public relations practitioners should aware of how primary publics intent to engage in word-of-mouth, especially, positive WOM,

because individuals are more influential than any other communication channels in changing unfavorable attitudes to favorable ones.

While two studies in crisis communication (i.e., Jorgensen, 1996; Lee, 2005) did not prove the links from attitude to behavioral intent, McDonald and his colleagues (2010) observed that attitude predicted behavioral intents such as negative word-of-mouth (NWOM) and complaining about the organization's misdeeds. Besides, the study found that lack of internal controllability elicited more anger and negative attitude. In addition, controllability had direct effects on emotion, attitude and some behavioral intentions such as negative word-of-mouth and complaining.

Aaker (1991) noted that loyal customers are critical parties to an organization because of their powerful influence on others in the market place. Gremler, Gwinner, and Brown (2001) supported this view in that positive WOM is the influential channel in creating business for companies. Along the same line, Godes and Mayzlin (2004) concluded that "there is little debate as to whether word-of-mouth matters to the firm" (p. 545).

### **Social Media and Crisis Communication**

Ever since McLuhan (1967) said "the medium is the message," communication research has dedicated to understanding the usage and effects of media on public.

When the Internet and World Wide Web emerged as new media in the 20th century, an enormous body of scholarship has devoted to examining how the new media could contribute to changing the ways organizations communicate with the public. In public relations, scholars have attempted to understand the potential uses of these technologies, expecting better relationship building between an organization and

the public (e.g., Coombs, 1998; Heath, 1998; Kent & Taylor, 1998; Kent, Taylor, & White 2003; Springston, 2001; Taylor, Kent, & White, 2001). Studies suggested that the Internet and the World Wide Web has the potential to facilitate more balanced two-way communications between organizations and the public as they provide opportunities for civic engagement (Rice, 2002).

Development of new technology has been significant in crisis communication research. As a crisis is an unexpected situation that involves a considerable threat, ongoing uncertainty and intensity, crisis management requires immediate and effective actions to diminish the damage. For this, understanding the effects of emerging communication media is imperative for crisis communication managers so that they can strategically determine which media to incorporate into the crisis communication and evaluate the effectiveness of those media for future planning.

Indeed, scholarship has recognized the potential of the Internet as a crisis communication medium. For example, employing Roger's diffusion of innovation theory (1962, 1995), Taylor and Perry (2005), examined how the Internet is used for crisis communication. In order to detect diffusion patterns of the Internet adoption in crisis communication, this study detected how new media are used in the organizations' Websites for crisis communication for five years (from October 1998 to October 2003). With regards to new media diffusion pattern, this study found that the use of the new media tactics was increased over time. Taylor and Perry also suggested that organizations adopted both one and two-way communication strategies to "maximize outcomes" (p. 210). For instance, those organizations examined in the study used the Internet to deliver both traditional (news releases, fact sheets, etc.) and new media

tactics (links to other information, audio and visual information, opportunities for two-way communications, etc.) in their crisis communication.

Findings of Taylor and Perry's study support the game theory in that the mixed motive approach can enhance symmetrical relationships between organizations and the public (Murphy, 1991). Building upon Murphy's notion, J. Grunig (2001) later noted in excellence theory that "an excellent two-way model of public relations that subsumes the former two-way symmetrical model and asymmetrical models" (J. Grunig, 2001, p. 26). This logic of game theory and excellence theory can be applied to crisis communication. Taylor and Perry (2005), for instance, suggested strategic use of both traditional and new media for crises because a crisis is a situation when timely, accurate, and effective communication is imperative. New media which allow reaching audiences over the world and create a dialogue between an organization and publics can provide such communication needs for crises.

While the initial works on new media in crisis communication focused on the Internet and was quite descriptive (e.g., Perry & Taylor, 2005), later research examined the different types of media for crises (e.g., Coombs & Holladay, 2009) and widened its scopes to examining the role of social media such as blogs, twitter and Facebook in comparison with the traditional media (e.g., Freberg, 2012; Liu, Austin, & Jin, 2011; Schultz, Utz, & Goritz, 2011; Utz, Schultz & Glocka, 2013; van der Meer & Verhoeven, 2013; Yang, Kang, & Johnson, 2010).

Likewise, the importance of social media has been increasingly appeared in both academia and the field of public relations. For instance, Larry Weber, a founder of Weber Shandwick, one of the largest public relations agencies in the world, suggested

that communication is moving toward a digital world and an understanding and knowledge should be learned about the transformation to effectively manage social media communication (Weber, 2007).

Even though there has been a growth in research that examines social media and public relations, critical research gaps can be identified within the field of crisis research. First, although the integration of social media into crisis communication has studied intensively in the past few years, the effects of the interplay among different social media and different crisis response strategies are still understudied. Studies on social media and crisis communication mostly focus on the impact of social media in comparison with traditional media (e.g., Schultz, Utz, & Goritz, 2011). The impacts of crisis communication via different media such as blogs in comparison with Facebook have not yet been studied experimentally. Second, public relations scholars continuously suggest outcome oriented research than output research in evaluating public relations effects. Public relations literature has indicated that outcome research involves two main streams, which are, behavioral outcomes and relational outcomes. Scott (2007, 2008), for instance, advocates measuring behavioral outcomes such as changes in attitudes, opinions, and behaviors that might be caused by public relations efforts. In addition to attitude-behavioral changes, relational outcomes have been critical in public relations research since Ferguson (1984) has suggested relational approach in understanding public relations effects. Although previous research has extended the scope of crisis research to incorporate social media, scholars suggested that classical crisis communication theories disregard the role of medium (Utz, Schultz, & Glocka,

2013), especially in understanding publics' relational and behavioral outcomes influenced by public relations efforts.

### **Why blogs and Facebook in crisis communication research?**

Media effects have long been a critical topic in communication research. In a recent survey by Pew Internet study (2010), nearly one-third (31%) of online adults are using new media such as blogs, social networking sites, online video, text messaging, and portable digital devices (Smith, 2010). The International Association of Business Communicators (IABC, Young, 2009) reported that more than half of all Internet users frequently visit social networking sites. Furthermore, social media ranked number one in an exploration of Internet usage, overtaking pornography sites (Tancer, 2008).

This is true for crisis. Research observed that publics' use of social media increases for crises (Pew Internet & American Life, 2006; Rainie, 2005). Publics rush to online for more information especially early phase of crisis during when traditional media is not (able) to provide extensive coverage of the crisis (Thelwall & Stuart, 2007).

Although scholars noted that form is largely ignored in crisis communication research (Jin et al., 2011b), scholars started examining the role of social media in crisis communication. Some studies observed that social media is preferred to traditional media in obtaining crisis information (e.g., Horrigan & Morris, 2005; Procopio & Procopio, 2007; Sweetser & Metzgar, 2007).

On the other hand, some found that traditional media is still believed to be more credible than social media in getting crisis information. Recently, Liu and her colleagues (2011b) recently proposed the social-mediated crisis communication model (SMCC) model and empirically tested the impacts of the information form (social media vs. traditional media vs. word-of-mouth) and source (organization vs. third person) on

publics' emotion and acceptance of organization's crisis response strategies. In order to understand the effects of information form, Facebook, campus newspaper, and face-to-face communication are chosen for the experiments. Authors observed the interaction effects between crisis origin (internal vs. external), information form and sources. For instance, when an organization is to blame for a crisis (i.e., the crisis origin is internal), publics expressed more negative emotions if the crisis response strategies are delivered through a social media by a third party. In addition, participants were more likely to accept crisis response strategies when the crisis information was disseminated through traditional media.

Even though findings of previous studies are useful, little efforts have been paid to understand which organizational social media is most effective in crisis communication. There are several reasons why more research on the comparison of organizational social media, such as the comparison between blogs and Facebook, is needed.

First, Facebook and blogs are the most frequently used social networking sites among college students (Jin et al., 2011b) who are the participants of the current study. Second, although blogs and Facebook are the most popular social networking sties, current trends show that more and more bloggers are moving to Facebook. For instance, Jin et al. (2011b) pointed out that there is a transition from blog to social media in this current digital media sphere. They added that influential bloggers are converted to influential social media creators and blog followers are converted to social media followers. Third, regardless of the transition from blogs to Facebook, organizations tend to keep both blogs and Facebook as practitioners are not sure of the

effectiveness of social media, which result in wasting of money and time in managing most popular social media into business. So far, research suggested that the effectiveness of social media relied more on the assumption that the value of social media is given (Taylor & Kent, 2010). And as scholars noted there has been little “evidence-based guidelines” (Jin et al., 2011b, p.3) that show “how to” effectively integrate social media to crisis communication. Coombs (2008) also pointed out research based practice in adopting social media in public relations practice. Coombs said that “the rapid evolution of new media often results in the practice of public relations getting ahead of research. The practice of crisis communication is ahead of research in terms of social media” (p.1).

During crisis, publics’ use of social media increase. It is important to understand the effectiveness of social media to provide evidence-based guidelines so that crisis communication can be prescriptive than descriptive.

In order to fill this gap in research, the current study examines the role of social media by integrating it to the traditional crisis model, SCCT. To precisely look at the impact of social media on publics’ relational outcomes as well as attitude-behavior intentions, the next section first reviews the definition of blogs, blogs as an emerging PR tool and how blogs is used in the context of crisis communication.

## **Blogs and public relations**

### **Definition of a corporate blog**

A blog, short for web log, is “easily published, personal web sites that serve as sources of commentary, opinion and uncensored, unfiltered sources of information on a variety of topics” (Edelman & Intellissek, 2005). Aside from personal blog, a blog has been increasingly used in public relations to communicate various types of information,

such as commercial, public, organizational and political, which has become an effective communication tool over the internet. As of 2008, Technorati, a search tool that tracks blogging topics, reported that more than 50,000 blogs mention typical news events every day and on some days.

A corporate blog is “a web site where an organization publishes and manages the content to attain its goals” (Lee, Hwang, & Lee, 2006, p.317).

### **Types of blogs**

Organizational blogs are operated by a variety of authors ranging from general public, such as consumers, to CEOs. Literature on blogs identified five types of corporate blogs based on the contents and authors (e.g., Dearstyne, 2005; Lee, Hwang, & Lee, 2006).

(1) Employee blog – It is a typical type of personal blog that is operated by a single employee of the organization. Although most of employee blogs are operated independently of the company web site, there has been an increase among companies which officially support employee blogs so that they can be hosted on company-owned domains.

(2) Group blog – While employee blog is hosted by one person, a group blog is maintained by several people. Also known as a collaborative blog, the content of a group blog varies from daily issues to specific topics such as technical issues run mostly by experts.

(3) Executive blog – This is a type of blog hosted by top executive of a company. Literature suggests that top executive blogs generate instant traffic in the blog-sphere

(Lee et al., 2006). In addition to corporate website, executives run their own blogs in an attempt to build direct interaction with key publics online.

(4) Promotional blog – Promotional blog is created for the purpose of marketing, i.e., generating buzz among consumers about products and events. Although widely used nowadays as a marketing tool, a promotional blog can hardly be free from criticism among bloggers as it lacks human voice.

(5) Newsletter blog – The purpose of newsletter blog is to officially represent an organization's voice and positions. Similar to news releases or newsletter, the contents of this type of blog mostly focus on the company such as product information and company news.

According to the identification of blog types, the current study adopts a newsletter blog type to examine the effects of crisis communication strategies delivered via different social networking platforms.

### **Corporate blog strategies**

Lee and his colleagues (2006) identified five corporate blogging strategies in terms of control mechanisms. Corporate blogging strategies are divided into two types, bottom-up bloggings (company-wide) and top-down bloggings, depending on whether a company officially allows its employees to blog.

Bottom-up strategies allow all company members to blog and a company hosts several different types of blogs for different purposes, such as product development, product promotion, customer service, express leadership etc. Top-down blogging companies allow only a small number of organizational members to blog. For instance, this type of companies operates blogs operated only by top management, few selected

employees or groups. Besides employee blogs, top-down blogging companies usually host its own corporate blogs.

Lee and his colleagues (2006) analyzed blogs of 18 companies (including corporate and employee blogs) of Fortune 500 companies and found that top-down strategies are preferred among the companies analyzed, which indicated that high-levels of control is maintained.

### **Blog as an emerging public relations tool**

Research has observed that blogs have emerged as a news communication tool for public relations practice. Examining the blogging adoption rate of the Fortune 500, a recent study found that the adoption rate has been increased from 16% (2008) to 28% from (2012) (Barnes, 2012).

Many early studies of the blogs and public relations focused on the way how blogs were used for different organizations as a communication tool by analyzing the content of their blogs. This type of studies include the description of blog uses for daily public relations practices (e.g., Wright & Hinson, 2008), blog uses for disaster situations (e.g., Macias, Hilyard, & Freimuth, 2010) and blogging adoption in communication industry (Sweetser, Porter, Chung, & Kim, 2008).

Wright and Hinson (2009) surveyed public relations practitioners (N = 574), and observed that most participants (73%) believed that social media (including blogging) affected the way organizations communicate with publics. According to Wright and Hinson, participants of the study reported that social media has changed the way their organizations communicate and handle external (68% of the participants) and internal (45% of the participants) communications. Although increases in use of social media

among publics. Only one third of the organizations represented by the participants' said that they monitor and evaluate internal (25%) and external (39%) communications regarding their organizations appeared on social networking sites. This could be because that social media is perceived to be less credible media than traditional media not only by publics but also by public relations themselves even if the adoption of social media in organizations is increasing (Wright & Hinson, 2008). Although useful in understanding how public relations practitioners perceive social media as a communication tool, the impact of social media on publics is under studied.

Others looked at the impact of blogging on outcomes such as organizational trust (e.g., Yang, Kang, & Johnson, 2010; Yang & Lim, 2009), relational outcomes (e.g., Kelleher, 2009), perception of a crisis (Sweetser & Metzgar, 2007), and emotions (Yang, Kang, & Johnson, 2010).

Examining the associations among blog credibility, relationship management and the perception of crisis, Sweetser and Metzgar (2007) found that blogs have a great potential as an organizational crisis communication tool. Findings suggested that participants' exposure to blogs maintained by different sources (control group, personal, and organizational) affected the perception of a crisis. This study yields six relationship factors including conversational human voice, communicated relational commitment, task sharing, relationship quality, responsiveness/customer service, and positivity/optimism. Relationship management as an outcome, participants in organization's blog cell rated highest scores in conversational human voice factor in managing relationships. In addition, those who read organizational blogs rated the lowest level in the perception of the crisis. With regards to the relationship between blog

credibility and the perception of the crisis, this study observed that those who rated low scores in blog credibility showed the highest level of crisis perception. Results of the study indicated that crisis managers might consider launching an organizational blog as a strategic choice of communication channel. Because a blog has the feature of conversational human voice, it generates interaction which can be useful in initiating a dialogue in responding to crises. This study, however, did not indicate whether the organizationally supported or third person published blogs might have different levels of credibility which could impact the perception of crisis.

## **Facebook and public relations**

### **Facebook**

Another social networking site with fast growth over the last decade is Facebook, which was launched in February 2004. According to the Facebook website, there are more than 800 million active users (those who logged onto Facebook within the last 30 days) as of October 2011. This number shows a dramatic increase in use compared to the 300 million active users in 2009.

Among the many features provided by Facebook, a wall post is most utilized by its users. A wall post can be viewed by any visitors unless the site administrator has chosen specific users to share with. Administrators can choose from four options offered by Facebook for selecting specific users to share with, including the general “Public”, “Friends of Friends”, “Friends”, or “Custom” (specific groups or individuals). Besides its role in linking offline relationships online, the wall post function in Facebook is utilized for many different reasons. For instance, journalists post to request interviews; headhunters use wall pages to inform clients of job opportunities, and job seekers leave a note on the wall looking for future employment. Facebook is found to be

a useful space for customers, especially when they are having problems or issues with products. Customers post their issues on the wall post of the company's Facebook page, looking for communicating opportunities with the company and/or other users for solutions. However, as many scholars have cautioned, simply providing space for users to post their comments does not guarantee relationship-building with the organization (e.g., Jo, 2005; McCorkindale, 2010).

### **Facebook and public relations**

Studies on Facebook have observed interesting trends in what motivates people to use the site. People use Facebook to bond their offline relationships to online, instead of building new relationships (Subrahmanyam, Reich, Waechter, & Espinoza, 2008; Valenzuela, Park, & Kee, 2009; Zhao, Grasmuck, & Martin, 2008). In this sense, Facebook, among other social networking sites, seems to offer opportunities for users to maintain both current and scattered relationships. Scholars labeled it as social capital, which is defined as any type of benefits (e.g., health, economic, civic activities, etc.) that one can receive from his/her social relations (Steinfeld, Ellison, & Lampe, 2008). Therefore, social capital focuses on the benefits one can obtain from interaction in a social network, and thus, has been seen as a positive effect of social media (Helliwell & Putnam, 2004).

Communication research on Facebook has mainly focused on descriptive studies in that how organizations use Facebook as communication tool (e.g., McCorkindale, 2010). Those studies spotlighted strategies used in Facebook, such as relationship strategies (e.g., Sweetser, 2010), and corporate social responsibility (CSR) and corporate ability strategies (CAb) (e.g., Kim & Rader, 2010).

McCorkindale (2010) analyzed the Facebook sites of the 2008 Fortune 500 companies for information related to how companies convey information and what efforts they are making to engage with publics. The results indicated that most companies were not using Facebook for disseminating information, even if the corporation's official Website was updated regularly. Even though some types of corporate information were found, the information frequently lacked substance and depth. With the exception of a few organizations, most companies did not take advantage of the two-way communication capabilities Facebook offers. McCorkindale concluded that the organizational "Facebook page was one-sided" (p. 11) and recommended that companies maximize their potential by showing publics that they are "responding to or engaging with customers, especially in the case with product issues" (p. 10).

Kim and Rader (2010) reported that organizations are using Facebook page for disseminating organizational information. The emphasis of the information is either corporate social responsibility (CSR) or corporate ability (CAb) which highlights the quality of products and services. Those organizations which emphasize both CSR and CAb employ hybrid approaches which mainly combine both CSR and CAb strategies.

In an attempt to see the type of information communicated via corporate Facebook, Haigh et al. (2012) content analyzed Facebook pages of 114 companies that have been selected from six, industry-recognized award lists such as Forbes' 100 Best Corporate Citizens, Fortune's Most Accountable Companies, PR News' 2009 Overall Leaders in corporate social responsibility etc. Findings reported that more than half of the corporate Facebook pages (68.4%) are used to inform corporate related information

(e.g., information about organization, its products, services etc.). Almost half of the companies (44.7%) are using Facebook to disseminate information such as posting news releases. More than half of the companies were active in interacting with stakeholders. In addition to two-way communication available by interactive feature of Facebook, findings also indicated that Facebook is could be a strategic choice to voice an organization's voices such as crisis responses to stakeholders.

In recent years, scholars have begun to examine the impact of social media on publics' affective and cognitive reactions. For instance, Haigh and colleagues (2012) experimentally observed that participants who had interactions with organizations' Facebook pages showed enhanced attitudes, trust and purchase intent.

Although these studies are useful in understanding the types of information on organizations' social media, there is little research experimentally examining how interacting with different corporate social networking platforms, such as Facebook and blogs, and the different crisis communication strategies employed affect publics' further reactions to the organization. Indeed, Austin and her colleagues (2012) noted that "information form may be as important as-or more important than-the actual crisis response message (p. 192)." Coombs (2012), a co-founder of SCCT, also argued that media matters in crisis communication; especially because that information transmitting on social media makes communication more complicated during crises and suggested future research to explore the impact of social media in crisis communication within relational approach.

Even if research on social media has been increasing, such inquiries are under studied as most studies on social media have been descriptive and lacked a theory-

based approach. The current study aims to fill this gap by exploring the relative effects among different social networking platforms on publics' behavior for corporate crises.

### **Hypotheses and Research Questions**

This section describes hypotheses and research questions proposed by the current study, which is guided by two theories, SCCT and TRA. Hypotheses and research questions, therefore, are largely categorized into two sections which aims to examine the main effects of independent variables and interaction effects on dependent variables in the context of food recall crisis. Regarding main effects, SCCT and TRA theories examine the main effects of three independent variables 1) crisis type, 2) crisis responses, 3) medium and 4) attitudes on dependent variable. The interaction effects of independent variables (i.e., crisis type, crisis responses, and medium) on dependent variables are also examined. Furthermore, this study examined the relationships between trust, attitudes, reputation and behavioral intentions to examine the assumptions of theory of reasoned action.

### **Product recall crisis**

Current study examined product recall crisis in the food industry. Research in consumer behavior has devoted considerable attention to identify factors that induce consumers' dissatisfaction with an organization facing product/service recalls. Day and Landon (1977), for instance, found that a consumer's personality can affect whether s/he expresses dissatisfaction. In addition to an individual's characteristics, studies have continuously observed that some organizational factors such as organizational remedies to its mishaps determine consumers' attitudes toward the organizations. Consumers tend to complain when they see that value of obtaining redress, availability

of direct compensation, and ease and convenience of obtaining redress are not secured (Day & Landon, 1977; Su & Bowen, 2000).

Research in communication has also paid attention to how communication could enhance mutual understanding between an organization and the public, especially when organizations face operational threats and risks. More specifically, crisis research has evolved to investigate the (desired) effect of product recall messages on the target audience (Gurau & Serban, 2005). The issue of communicating product failure messages has become emphasized recently, especially given that the number of product recalls has dramatically increased. For instance, one study found that 6.7 product recalls occurred in 1997 (Gibson, 2000) and more than 300 in 2009 (Birchall & Milne, 2009). Gibson (1995), for example, emphasized the importance of understanding “consumers’ perceptions of the salience of recall information” (p. 238). For this, scholars have suggested a theoretical model to predict the relationships between consumer cognitions and their course of action following a product recall. Folkes (1984), for instance, applied attribution theory to move beyond the identification of general factors and to predict how attribution of cause for product failure influences consumer reactions.

Product recall can be appropriate type of crisis in understanding media effects in crisis management. As Taylor and Perry (2005) noted, the very specific situations such as lawsuits, natural disasters, or product recalls might require the use of new media in crisis responses. There have been several real-world cases in which organizations adopted new media in their crisis management (e.g., recall of GE’s dishwashers, Graco Baby Products baby swings, and Fischer Price power wheels vehicles for children). The

organizational decisions to communicate online following a recall were a new crisis strategy choice that proved to be effective. Organizational efforts at two-way communication provide both organizations and publics to ask and respond to questions which help the affected organizations to rebuild consumer trust.

As Coombs (1999) noted, the effect of an organization's crisis depends on communication, the pattern of which changes as technology develops. The diffusion of innovation literature also indicates an increase in the rate of organizational use of new media. Even if social media are being utilized on an ever-increasing basis by corporations and other organizations (Wright & Hinson, 2009), there has been growing needs for measuring effectiveness of social media as an organizational communication tool (e.g., Paine 2009) in crisis situations. Research continuously has suggested that there should be more academic research on blogging and social media (Wright & Hinson, 2009). In his review of crisis literature, Gibson (2000) also clearly argued that traditional rules of crisis communication are no longer effective as "they have been supplanted by the new order, a cyber-revolution" (p. 24). He suggested that cyberspace is the first place where strategic crisis communication begins.

Despite the scale of product recalls, combined with an increased focus on how segmented audiences will respond to the recalls (Souiden & Pons, 2009) via different media, the current understanding of how consumers will respond to product recall messages is limited (Laufer & Jung, 2010; Souiden & Pons, 2009). As Coombs and Holladay (2002) noted, product recall involves a "unique dynamic" (p. 180), which remains to be explored.

In order to fill the gap academically, this study aims to examine SCCT in the food recall crisis context by examining the impacts of different types of food product recall messages communicated via different media, on consumers' attitude and behaviors. More specifically, frozen pizza recalls have been chosen because frozen pizza/snack was ranked as the fourth fastest growing frozen food category with sales increasing by 1.3 percent in 2014. In addition, food recall has been widely examined in crisis research (e.g., Kim, 2009) due to "high level of usage of the product" (Laufer & Jung, 2010, p. 148), especially when subjects involve diverse age groups.

### **Summary of Hypotheses and Research Questions**

Before proposing the specific hypotheses and research questions that will guide this investigation, Figure 2-3 provides a theoretical model of the relationships among variables in the context of food recall crisis. This conceptual model demonstrates how and where each set of hypotheses and research questions fit into the broader theoretical framework.

Guided by SCCT and TRA, this study attempted to examine 1) the main effects of crisis type, crisis response and medium on dependent variables (attribution of crisis responsibility, trust, reputation, attitudes, behavioral intention and positive WOM), 2) the interaction effects of independent variables (crisis type, strategy, and medium) on dependent variables, and 3) the effects of attitudes on outcomes (behavioral intentions and positive WOM).

#### **Main effects**

Effects of crisis type on dependent variables

Previous studies on crisis communication found that victim crisis type is likely to yield more favorable stakeholders' evaluation of an organization (less attribution of

organizational crisis responsibly, higher level of organizational trust and reputation and more negative emotions). In the relationship between crisis type and some of the dependent variables, the following hypotheses are proposed:

**H1:** Victim crisis type will lead to less organizational crisis responsibility (H1a), better trust (H1b), better reputation (H1c), and more anger (H1d) than preventable crisis type.

#### Effects of organizational crisis responsibility on dependent variables

SCCT suggests that preventable crisis assumes the strongest organizational responsibility for the crisis, while victim crisis type includes the weakest organizational responsibility for the crisis. Previous studies on SCCT confirmed that organizational responsibility for the crisis is negatively related to the judgements of the organization, such as trust, reputation, positive emotion, attitudes, and supportive behavioral intentions. Therefore, the following hypotheses are proposed:

**H2:** Participants in the higher attribution of organizational crisis responsibility will show lower trust (H2a), lower reputation (H2b), more anger (H2c), higher negative attitudes (H2d), less purchase intention (H2e), and less positive WOM (H2f) than those in the lower attribution of organizational crisis responsibility.

#### Effects of strategy on dependent variables

Crisis literature suggested that stakeholders judge an organization more positively when the organization used rebuilding strategies (i.e., accepting its responsibility and making efforts to manage the crisis) than diminishment strategies (avoiding or minimizing its responsibility for the crisis). The relationships between crisis strategy and some of the dependent variables suggested in this study haven't been examined in the previous literature. Consequently, the following hypotheses and research question are proposed:

**H3:** Rebuilding strategy will lead to better trust (H3a), better reputation (H3b), and lower anger (H3c).

**RQ1:** What is the relationship between crisis strategy and the attribution of crisis responsibility (RQ1a), attitudes (RQ1b), purchase intention (RQ1c), and positive WOM (RQ1d)?

#### Effects of medium on dependent variables

Media effects have been a critical topic in public relations research. Media play a role of communication channel that allows interactions between stakeholders and organizations. Literature on crisis communication has continuously raised questions about the effects of different communication channels on crisis communication outcomes. Scholars have suggested that the communication channel effects in crisis communication research should move beyond print media (Coombs & Holladay, 2009) to diverse forms of media (Schultz, Utz, & Goritz, 2011; van der Meer & Verhoven, 2013). Recently, studies on social media have suggested that communication via social media yielded better evaluation of an organization, such as reputation, trust, satisfaction, and commitment, than communication via traditional media. As a result, the following hypotheses are proposed:

**H4:** Crisis communication via Facebook and Blog will lead to higher trust (H4a) and higher reputation (H4b) than that of via traditional media.

In relationships between the medium and attitudes and behavior intentions, little studies have examined the linkage between the medium and the outcome variables.

Therefore, the following research question is proposed:

**RQ2:** What is the effects of medium on the attribution of organizational responsibility (RQ2a), anger (RQ2b), attitudes (RQ2c), purchase intention (RQ2d), and positive WOM (RQ2e)?

## Effects of trust on dependent variables

Public relations scholarship has suggested that trust should be the relational outcomes between the two parties. Crisis communication literature (e.g., Coombs, 2000; Coombs & Holladay, 2001) confirmed supported that favorable relationships resulted in positive reputation, attitudes and more supportive behavioral intentions.

Summing up the past literature lead to the following hypotheses and research question:

**H5:** Participants in the higher trust will show greater reputation (H5a), more positive attitudes (H5b), and higher purchase intention (H5c).

**RQ3:** What is the relationship between trust and positive WOM?

## Effects of reputation on outcome variables

Over the years, the link between reputation and its attitudinal and behavioral outcomes have been considerably examined in public relations. Scholarship maintained that an organization's good reputation produces stakeholders' supports for the organization (Fombrun & van Riel, 2003). In addition, studies found that good reputation lead to positively spread about the organization (Hong & Yang, 2009). Accordingly, the following hypotheses are suggested:

**H6:** Higher reputation will lead to better attitudes (H6a), higher purchase intention (H6b), and higher positive WOM (H6c).

## Effects of anger on outcome variables

Scholarship has suggested that emotions drive behavioral intentions. Communication literature found that anger is the dominant type of emotion identified in crisis situations, which affect the communication outcomes. For instance, anger increases punitiveness (Jorgensen, 1996), negative purchase intentions (Jorgensen, 1996; Coombs & Holladay, 2007), negative WOM (Coombs & Holladay, 2007), and

indirectly affects intentions for investments (Jorgensen, 1996). Therefore, current study suggests:

**H7:** Anger will lead to higher negative attitudes (H7a), lower purchase intentions (H7b), and lower positive WOM (H7c).

#### Relationship between attitudes and behavioral intentions

Theory of reasoned action (TRA) has suggested that attitudes predicts behavioral intentions. The relationship between attitude and behavioral intention has been important in public relations as the association between the two variables can be used in evaluating the effectiveness of public relations programs. Public relations scholarship also confirmed that positive attitudes resulted in positive behavior intentions. Therefore, the following hypotheses are suggested:

**H8:** Attitudes will be positively related to purchase intention (H8a) and positive WOM (H8b).

#### **Interaction effects**

##### Interaction effects of crisis type and strategy on dependent variables

Previous research on the interaction effects of crisis type and crisis responses on the judgements of an organization showed mixed findings. Although there was a match between crisis type and responses, Claeys et al. (2010) did not find any interaction effects on outcome variables including reputation, which did not mirror those of previous findings (e.g., Coombs & Holladay, 1996). Recently, Kim and Sung (2014)'s study found that the interaction effects were only observed in the preventable crisis type, but not in the victim type. Due to the inconsistent findings, current study propose the following research question:

**RQ4:** What are the interaction effects of crisis type and strategy on attribution of crisis responsibility (RQ4a), organizational trust (RQ4b), organizational reputation (RQ4c), anger (RQ4d), attitudes (RQ4e), purchase intention (RQ4f), and WOM (RQ4g)?

Interaction effects of crisis responses and medium on dependent variables

Past research found interaction effects between crisis responses and medium on outcome variables. Scholars observed that crisis strategies in the Twitter condition leads to less negative secondary communication intentions, such as sharing the crisis information, commenting on the crisis information, and boycotting the organization (Schultz et al., 2011). Current study aimed to examine the interaction effects of crisis responses (rebuilding vs. diminishment) and medium (blog vs. Facebook vs. newspaper) on public's reaction to an organization, which are understudied. Therefore, this study suggests the following research question:

**RQ5:** What are the interaction effects of crisis strategy and medium on attribution of crisis responsibility (RQ5a), organizational trust (RQ5b), organizational reputation (RQ5c), anger (RQ5d), attitudes (RQ5e), purchase intention (RQ5f), and WOM (RQ5g)?

Interaction effects of crisis type and medium on dependent variables

Past research indicated that communication channel matters more than crisis messages or crisis type in affecting public's reactions to crisis and intentions for secondary communication behaviors such as sharing information and leaving a message (Schultz, et al., 2011; Utz et al., 2013). Based on previous findings, current study proposes:

**H9:** The effects of medium on attribution of crisis responsibility (H9a), organizational trust (H9b), organizational reputation (H9c), anger (H9d), attitudes (H9e), purchase intention (H9f), and WOM (H9g) are stronger than the effects of crisis type

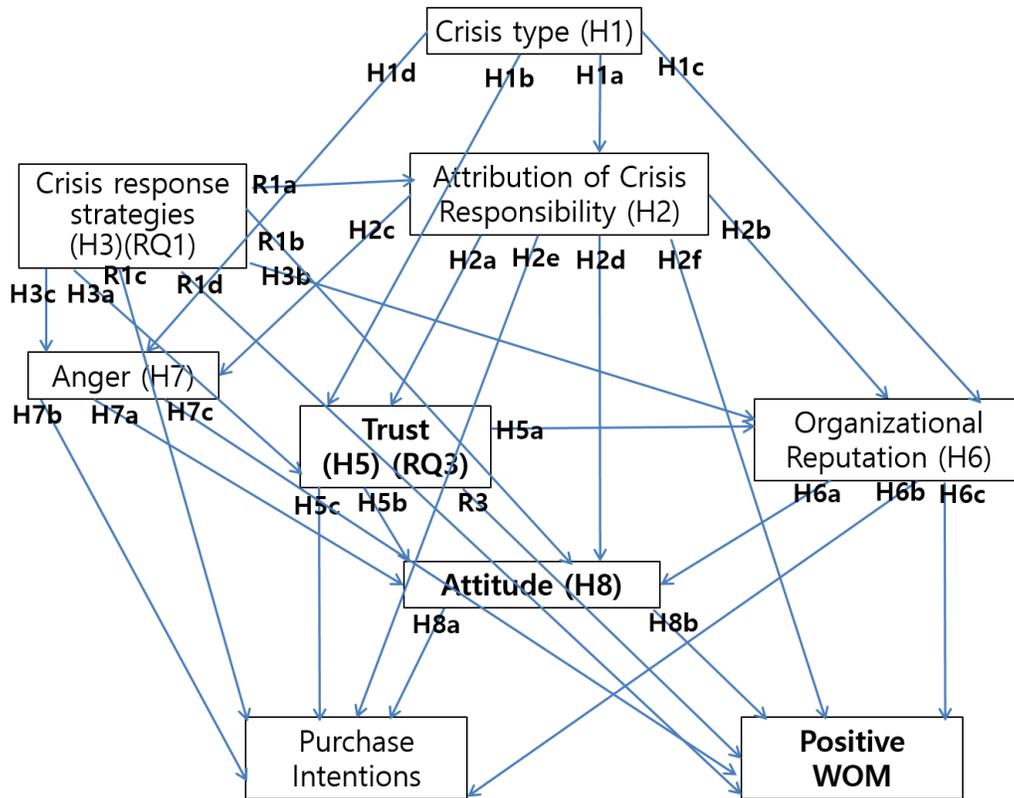


Figure 2-3. Conceptual extension of the SCCT for food recall crisis.

Hypotheses 4a and 4b test the effects of medium on trust (H4a) and reputation (H4b). Research questions 2a to 2d explore the effects of medium on rest of the dependent variables, including anger (RQ2a), attitudes (RQ2b), purchase intention (RQ2c), and positive WOM (RQ2d).

Hypotheses 9 and research questions 4 to 5 examine the interaction effects of independent variables on dependent variables. More specifically, hypotheses 9 test the interaction effects of crisis type and medium; research question 4 examine the interaction effects of crisis type and strategy; and research question 5 examine the interaction effects of crisis strategy and medium on dependent variables.

## CHAPTER 3 METHODS

This study concentrates on the interplay role of crisis response strategies and medium in crisis management. An experimental design is used to examine how the effects of different crisis responses communicated via different medium in various crisis contexts are associated with public's determining the attribution of crisis responsibility, emotions, attitudes, and behavioral intentions.

### **Experimental Design**

To test the interplay impact of crisis type, crisis response strategies and communication medium in food recall crisis communication, this study employs a 2 (crisis type: victim vs. preventable) X 2 (crisis response strategy: diminishment vs. rebuilding) X 3 (communication medium: corporate blog vs. corporate Facebook vs. Newspaper) between-subject design, resulting in twelve conditions. Each subject received only one of the twelve conditions. Dependent variables include attribution of crisis responsibility, emotions, reputation of an organization, relationships with an organization, attitudes, and behavioral intentions.

First, two types of crisis are used. One is victim type which is thought to lead to organization's low attribution of crisis responsibility, and the other is preventable type that produces high level of organizational attribution of crisis responsibility (SCCT, 2007).

Second, two crisis response strategies are provided which include diminishment and rebuilding strategies. SCCT suggests that the positive outcomes are expected when crisis responses are matched with crisis types. According to SCCT, the diminishment strategy is appropriate for a victim crisis type (i.e., organization's low

responsibility crisis type), which indicates that an organization takes minimal responsibility for the crisis or argues that outsiders are responsible for the wrongful acts. The rebuilding strategy is appropriate for a preventable crisis type (i.e., a high responsible crisis event), which admits that there is a crisis and is willing to accept the responsibility for the crisis. In this study, each crisis strategy is designed to match with all crisis types because the objective of the study is to examine the moderating effects of medium among the crisis type, response strategies and public's outcomes. The scenarios are created based on real but lesser known crises, but the information was manipulated to fit the objective of the study.

Third, each crisis response is presented on a different medium including organization's blog, organization's Facebook and traditional media. Therefore, each of the four crisis scenarios has three different medium options, resulting in a total of twelve crisis scenarios. The subjects were randomly assigned to one of the twelve cells.

### **Participants**

The subjects in this study consisted of adults (18 years old or older), and therefore, the unit of the analysis was each individual. Participants were recruited from a crowd-sourcing web service called "Amazon Mechanical Turk (MTurk)." Mechanical Turk is an online labor marketplace created by Amazon in 2005. MTurk was first developed for internal use, but has been slowly integrated in the academic research. There has been a debate about the sampling bias using MTurk participants because scholars has just begun to use and validate MTurk in research (Berinsky, Huber, & Lenz, 2012). Scholars and professionals, however, have continuously observed that MTurk participants are often better represent the U.S. population than in-person

convenient samples (Berinsky, Huber, & Lenz, 2012; Berinsky, Margolis, & Sances, (2013); Paolacci, Chandler, & Ipeirotis, (2010). Buhrmester, Kwang, and Gosling (2011), for instance, stated that “Our analyses of demographic characteristics suggest that MTurk participants are at least as diverse as and more representative of non-college populations than those of typical Internet and traditional samples (p. 5).” Participants in the MTruk study usually are offered less than \$1 (Horton & Chilton, 2010). For the current study, participants received \$.50 monetary compensation for their participation.

## **Pretest and Experiment Stimuli Development**

### **Pretests Procedures**

Pretests were conducted to confirm whether three independent variables, i.e., crisis type, crisis response strategies, and medium, were successfully manipulated. Participants were recruited using Amazon's Mechanical Turk.

A fictitious company, Pizzeria Palermo Foods was used to prevent pre-established judgements that might be linked with real organizations. The company, Pizzeria Palermo Foods, was described as a US based frozen food company that produces pizza. Frozen pizza industry was chosen because a recent survey about pizza consumption reported that more than 15% of U.S. households have consumed frozen pizza in the last 30 day (Statista, 2015). In 2014, frozen pizza/snack was ranked as the fourth fastest growing frozen food category with sales increasing by 1.3 percent. Participants of the current study involves most of all age groups, thus, frozen pizza recalls are appropriate product category to meet the aim of the current study. (<http://www.statista.com/statistics/253379/us-frozen-food-sales-growth-by-product-category/>).

At the beginning of the pretest, participants were asked to read consent form and to click on “Agree” button if they decided to participate in the study. After confirming, participants were randomly assigned to one of the twelve conditions. In each condition, subjects were provided with a short news report about Pizzeria Palermo Foods’ crisis (See Appendix A for the news articles). The article briefly explained that an E-Coli contamination was found in Pizzeria Palermo Foods’ frozen pizzas. In addition, the news report discussed the cause of the crises to indicate two types of crisis, which is, victim and preventable. After reading the news article, subjects were asked to provide their perceptions of what caused the crisis, which was the first manipulation check item.

After reading crisis news article, participants were asked to read Pizzeria Palermo Foods’ open letter to customers with different combinations of crisis types, crisis responses and media. After that, subjects were asked to provide their perceptions about how organization responded to the crisis and the medium thorough which the organization’s message delivered, which are the second and the third manipulation checks.

### **Stimuli 1: Crisis type: Victim vs. Preventable crisis**

Crisis type was manipulated by presenting participants with a brief description of what led to a nationwide recall of frozen pizzas sold by Pizzeria Palermo Foods. Mock newspaper reports of two different crisis types (i.e., victim and preventable) were created. The two news reports were written and edited by crisis communication experts and journalists. News articles reported the cause of the crisis, the number of deaths and patients (3 were dead and XXXX were poisoned) who are in serious conditions. In the

news, an official crisis report written by U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) was included. Stories were written in newswire style, and headlines were included to easily identify crisis types.

In the victim condition, unknown malicious tampering of outsiders led to frozen pizza E-Coli poisoning. In the preventable crisis condition, unsanitary conditions of pizza maker led to E-coli in frozen pizzas. In order to prevent any effects of different types of poisoning, both victim and preventable crises were manipulated to experience the same disease, which is E-Coli.

The word counts for crisis report were 169 (victim crisis) and 184 (preventable crisis), respectively.

### **Stimuli 2: Crisis response strategies: Diminishment vs. Rebuilding**

Two crisis responses were chosen based on strategy continuum suggested by SCCT (2007). Crisis response strategies were presented in the form of the company's official letter to the customers. Crisis response messages were manipulated to indicate the company's two different types of responses to the recalls, which are diminishment and rebuilding. Diminishment response strategy involved excusing and justification. In the diminishment condition, participants read crisis responses that the company tried to attack the accuser and shift the blame to the accusers in order to justify the crisis. Diminishment strategies were used to indicate that the company aimed to reduce the attribution of company's control over the crisis. Rebuilding strategies included a direct apology and compensation statements. While the diminishment strategy is used to avoid or reduce the organization's responsibility for the crisis, rebuilding response admits either some sort of or full responsibility for the crisis. In the rebuilding condition,

the company made a direct apology to the customers and families and provided compensation to the affected customers and their families.

The word counts for victim crisis types were 171 (diminishment response) and 182 (rebuilding response), respectively. The word counts for preventable crisis type were 166 (diminishment response) and 192 (rebuilding response).

### **Stimuli 3: Communication Medium: Corporate blog vs. Corporate Facebook vs. New York Times.**

The participants of the study were provided the same contents but with different communication medium, corporate blog, corporate Facebook and New York Times.

### **Operationalization and Manipulation Check Items**

**Crisis type.** Crisis type signifies a frame that suggests how public should interpret crisis event (Coombs, 2007). That is, crisis type affects how public perceive attribution of corporate responsibility and the level of corporation's responsibility for the crisis. Therefore, this study operationalized crisis type by differentiating the attribution of crisis responsibility. That is whether the cause of the crisis is something internal or external. Adopted from past crisis research (e.g., Huang, 1997), crisis type was measured by asking participants to evaluate the locus of crisis attribution on four items on a 7-point scale, with 1 = strongly disagree to 7 = strongly agree. The higher the score is, the more likely the participants perceive that the crisis happened due to company's misdeeds.

1. The crisis occurred due to Pizzeria Palermo Foods's mismanagement (i.e., dirty conditions of facilities).
2. Pizzeria Palermo Foods could have avoided the product tampering.
3. Pizzeria Palermo Foods is the victim of this crisis because the crisis occurred

- due to an outsider's malicious food tampering.
4. The cause of the crisis is something outside Pizzeria Palermo Foods.

**Crisis response strategies.** Crisis response strategy is defined as “the specific frame that the organization’s spokesperson used to respond to the crisis situation” (Ki and Brown, 2013). Crisis response strategies were measured with a total of eight items. These items were adopted from Huang’s study (1997), which examined the effects of crisis responses on relational trust. The original scale consisted of a total of seventeen items including 7 items measuring rebuilding strategies and 10 items measuring diminishment strategies. The current study adopted eight items to meet the objective of the study.

Items for measuring rebuilding strategies include:

1. Pizzeria Palermo Foods admits the accused act.
2. Pizzeria Palermo Foods apologizes and ask for forgiveness for the crisis.
3. Pizzeria Palermo Foods promises to compensate the victims.
4. Pizzeria Palermo Foods promises to change the corporate public policy to prevent a reoccurrence in the future. .

Items for measuring diminishment strategies include:

1. Pizzeria Palermo Foods states that the crisis is not as serious as outsiders view it.
2. Pizzeria Palermo Foods states that the corporation is one of the victims.
3. Pizzeria Palermo Foods tries to disperse the attack focus to outsiders.
4. Pizzeria Palermo Foods strives to justify the crisis because the incident is not Pizzeria Palermo Foods’ fault.

**Medium.** The current study compared the relative effectiveness of three medium, including corporate blog, corporate Facebook, and New York Times. Participants of the

study were received Pizzeria Palermo Foods' responses on different communication media, including corporate blog, corporate Facebook and New York Times. To check the communication medium, a single item was asked:

- Which of the following medium did you read the message?
  - ① Pizzeria Palermo Foods Company Facebook
  - ② Pizzeria Palermo Foods Company blog
  - ③ New York Times

### **Pretest Results**

To validly ensure that the stimuli messages were manipulated accordingly, manipulation check was conducted. A total of 65 subjects who were recruited from the Amazon MTurk participated in the study. However, 5 were excluded from the analysis who did not complete the survey, resulting in a total of 60 responses used for the analysis.

### **Reliability**

The reliability of the measurement scales were examined through the value of Cronbach's alpha. Scales containing items negatively worded were reversed before checking reliability. Ideally, the Cronbach alpha coefficient of a scale should be above .7 (DeVellis, 2012). The crisis type consisted of 4 items (Cronbach's  $\alpha = .917$ ), the rebuilding strategy consisted of 4 items (Cronbach's  $\alpha = .87$ ), and the diminishment strategy consisted of 4 items (Cronbach's  $\alpha = .81$ ). The Cronbach's alpha value for all the index indicated that items measured the same underlying construct

### **Manipulation Check**

An independent sample t-test was run to assess the effectiveness of the experimental manipulations. First, crisis type index included a total of four items, including 2 victim questionnaires and 2 preventable questionnaires. The t-test found a significant difference between the victim ( $t(58) = 9.29, p < .000$ ) and preventable ( $t(45.97) = -10.51, p < .000$ ) crisis types. That is, participants who read a news report stating that the company could have prevented the crisis ( $M = 6.37, SD = .85$ ) rated it as more preventable type than a news story of victim ( $M = 3.1, SD = 1.50$ ) when they were asked to answer preventable questionnaire index. Similarly, participants in the victim condition rate it as more victim crisis type ( $M = 5.3, SD = 1.53$ ) than the news story of preventable type ( $M = 2.00, SD = 1.20$ ) when they were asked to answer victim questionnaire items.

Second, to assess perceptions of crisis response strategy, four newsletters about diminishment and rebuilding strategies were compared on the items for both diminishment index (4 items) and rebuilding index (4 items). The analysis indicated significant differences in the items for the diminishment ( $t(44.19) = 5.57, p < .001$ ) and for the rebuilding strategy ( $t(52.75) = -13.14, p < .001$ ). This means that, participants who read the newsletter containing excuses and attributing blame to outsiders about the crisis rate it as more diminishment strategy ( $M = 4.97, SD = .90$ ) than the newsletter of rebuilding statement ( $M = 3.01, SD = 1.70$ ) when they were asked for the diminishment questionnaire index. Likewise, participants rate the newsletter of rebuilding statement ( $M = 5.95, SD = .83$ ) as more rebuilding strategy than the newsletter of diminishment ( $M = 2.55, SD = 1.15$ ).

## **Procedure**

The experiment was conducted on the web through Qualtrics.com. All the materials for the experiment including crisis reports, organization's crisis response strategies and questionnaires were posted on the web. Subjects of the study were randomly assigned to one of the twelve conditions (i.e., victim vs. preventable crisis types X diminishment vs. rebuilding crisis response strategies X corporate blog vs. corporate Facebook vs. New York Times).

Participants who agreed to voluntarily participate in the study were asked to click the "agreement" tab, and to input the "code" provided by the researcher at the end of the study to receive monetary compensation.

### **Dependent Variables Measures**

**Attribution of crisis responsibility.** This study operationalized "attribution of crisis responsibility" as "the observation and measurement of the amount of responsibility and blame placed on the organization for causing the crisis situation" (Ki & Brown, 2013). Crisis attribution items were adopted from previous studies (e.g., Brown & White, 2011; Coombs and Holladay, 2002; Ki & Brown, 2013) and modified to fit to the context of the current study. For the current study, the attribution scale modifications were made through editing and pretesting in order to increase reliability. The modifications resulted in a four-item, which were measured using a 7-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7).

Among the four items, the last two items were reverse coded. The higher the score, the more the respondents attribute the cause of the crisis to the organization.

The items include:

- A. The crisis is the fault of Pizzeria Palermo Foods.
- B. The blame for the crisis lies in Pizzeria Palermo Foods.

- C. External sources, other than Pizzeria Palermo Foods, caused the crisis.
- D. The blame for the crisis lies in the outside, not Pizzeria Palermo Foods.

**Emotions.** According to literature, anger, sadness, fright and anxiety, were identified as the primary negative emotions publics are most likely to feel in crisis situations (Jin, Pang, & Cameron, 2007, 2008). These emotions were measured with the items adopted from Izzard's (1993) Differential Emotions Scale (DES; Fredrickson, Tugade, Waugh, & Larkin, 2003) to assess experiences of discrete emotions. Participants were asked to respond to "what happened in the news story made me feel" "angry, irritated, annoyed." Responses were recorded on a 7-point Likert-type scale where 1 = very unlikely and 7 = very likely.

**Trust in the organization:** Five items were adopted from Hon and Grunig's study (1999) to measure the perceived trust in the organization. The items were measured on a 7-point scale, which ranges from 1 (strongly disagree) to 7 (strongly agree). Trust measurement consists of three dimensions, integrity (items A, B), dependability (items C) and competence (items E, F).

- A. Pizzeria Palermo Foods treats people like me fairly and justly.
- B. Whenever Pizzeria Palermo Foods makes an important decision, I know it will be concerned about people like me.
- C. Pizzeria Palermo Foods can be relied on to keep its promises.
- D. Pizzeria Palermo Foods has the ability to accomplish what it says it will do.
- E. I feel very confident about Pizzeria Palermo Foods' skills.

**Organizational reputation.** To measure organizational reputation, the current study adapted two dimensions from Harris-Fombrun Reputation Quotient which originally consists of six dimensions (Fombrun et al., 2000), including 1) emotional appeal, 2) products and services, 3) vision and leadership, 4) workplace environment,

5) financial performance, and 6) social responsibility. In order to meet the objective of the study, a total of 5 items measured were used to measure two dimensions - products and services and workplace environment. For all items, a 7-point Likert scale of disagreement-agreement with 4 as a neutral point was used.

**Products and services:**

- A. Pizzeria Palermo Foods stands behind its products and services.
- B. Pizzeria Palermo Foods offers high quality products and services.

**Workplace environment:**

- C. Pizzeria Palermo Foods is well managed.
- D. Pizzeria Palermo Foods looks like a good company to work for.
- E. Pizzeria Palermo Foods looks like a company that would have good employees.

**Attitude.** Overall attitudes toward the organization were measured with a global attitude measure adapted from Burgoon et al. (1978). It consisted of six semantic differential scales including; good/bad, positive/negative, wise/foolish, valuable/worthless, favorable/unfavorable and acceptable/unacceptable. All items were measured on a 7-interval scale.

**Purchase intentions.** The main dependent variable, purchase intention, was measured using two items assessed on a 7 point, Likert-type scale adapted from previous literature (e.g., Lee, 2005). On a 7-point Likert-type scale ranging from 1 (strongly unlikely) to 7 (strongly likely), participants were asked to respond to the following two questions:

- A. I will still consider Pizzeria Palermo Foods when I plan to buy a frozen pizza.
- B. I will hesitate in choosing Pizzeria Palermo Foods to buy a frozen pizza.

**Positive word-of-mouth (WOM).** The items for measuring positive WOM adopted from Brown et al.'s study (2005) which investigated consumers' positive word-

of-mouth intentions and behaviors in a retailing context. Two items were measured on a 7-point scale, where 1 refers to definitely would not and 7 refers to definitely would.

- A. If your friends are shopping for a frozen pizza, how likely is it that you would recommend Pizzeria Palermo Foods?
- B. How likely would you recommend Pizzeria Palermo pizza to your family?

Table 3-1. Word counts for crisis news reports and crisis responses

	Crisis report		Crisis responses	
	Crisis news article	Diminishment	Rebuilding	
Victim crisis type	169	171	182	
Preventable crisis type	184	166	192	

## CHAPTER 4 ANALYSIS AND FINDINGS

This chapter describes the data analysis procedures used to test the hypotheses and to answer the research questions. All statistical analyses were completed using the IBM Statistical Package for the Social Science (SPSS) 22.0. Independent sample t-test and Chi-square tests were employed for manipulation checks in the main study. In addition, one-way and two-way analysis of variance (ANOVA), multivariate analysis of variance (MANOVA), independent sample t-test, and regression analysis were used for addressing the research questions and hypotheses testing.

### **Description of Collected Data**

Five hundred nine people completed the survey during the one-week data collection period in June, 2015. Among them, forty-eight responses were excluded because they were incomplete. As a result, a total of 461 responses were analyzed in this the study.

Among the 461 participants, about 55.3% of them were male and 44.7% were female. The average age of the participants was 34.39 years old (with minimum 19, maximum 75). The majority of the participants were Caucasian (75.9%), followed by Asian (8.9%), Hispanic/Latino (6.3%), African American (6.3%), and Native American (.7%). The majority of the participants held bachelor's degree (42.3%), while others reported they had college degrees (30.6%), high school diplomas (10.2%), or master's degrees (7.8%).

### **Descriptive Statistics**

#### **Manipulation Check for Main Experiment**

In the main test, a total of 461 subject participated in the study. In order to validate the manipulations, these were checked for crisis type, crisis responses, and medium using the independent sample-t test and Chi-square test.

**Crisis type.** Independent sample-t test results showed that manipulation of crisis type was successful in the main test (Preventable index: Victim  $N = 230$ ,  $M = 3.04$ ,  $SD = 1.42$ , Preventable  $N = 231$ ,  $M = 6.16$ ,  $SD = 1.15$ ,  $t(438.85) = -25.86$ ,  $p < .001$ ; Victim index: Victim  $N = 230$ ,  $M = 5.35$ ,  $SD = 1.36$ , Preventable  $N = 231$ ,  $M = 2.30$ ,  $SD = 1.50$ ,  $t(459) = 22.87$ ,  $p < .001$ ).

**Crisis responses.** Independent sample-t test results verified that crisis responses were successfully manipulated in the main test (Rebuilding index: Diminishment  $N=230$ ,  $M = 2.91$ ,  $SD = 1.28$ , Rebuilding  $N = 231$ ,  $M = 5.69$ ,  $SD = 1.00$ ,  $t(433.59) = -25.93$ ,  $p < .001$ ; Diminishment index: Diminish  $N = 230$ ,  $M = 5.01$ ,  $SD = 1.04$ , Rebuild  $N = 231$ ,  $M = 2.73$ ,  $SD = 1.45$ ,  $t(416.06) = 19.37$ ,  $p < .001$ ).

**Medium.** The Chi-square test confirmed the successful manipulation of medium. The majority of the participants correctly identified the medium they saw ( $\chi^2 = 104.13$ ,  $p < .001$ ).

## **Reliability**

**Attribution of crisis responsibility.** An average score of four seven-point Likert scale items was reported to indicate the extent to which participants attribute the responsibility for the crisis to the organization (i.e., *Pizzeria Palermo Foods*) used in the study ( $M = 4.02$ ,  $SD = 1.75$ ; Cronbach's  $\alpha = .909$ ). The higher the score, the more the respondents attributed the cause of the crisis to the organization.

**Emotions.** According to literature, anger, sadness, fright and anxiety, were identified as the primary negative emotions publics are most likely to feel in crisis situations (Jin, Pang, & Cameron, 2007, 2008). These emotions were measured with the items adopted from Izzard's (1993) Differential Emotions Scale (DES; Fredrickson, Tugade, Waugh, & Larkin, 2003) to assess experiences of discrete emotions. Participants were asked to respond to "what happened in the news story made me feel" choosing one of the following options: (1) "angry, irritated, annoyed"; (2) "sad, downhearted, unhappy"; (3) "scared, fearful, afraid"; and (4) "nervous, anxious, worried." Responses were recorded on a 7-point Likert-type scale where 1 = very unlikely and 7 = very likely.

**Organizational trust.** Five seven-point Likert scale items were used to measure organizational trust ( $M = 4.09$ ,  $SD = 1.63$ ; Cronbach's  $\alpha = .949$ ). The trust measurement consisted of three dimensions: integrity (items A, B), dependability (item C) and competence (items E, F). The higher the score, the more the respondents show trust in the organization. They were asked to respond to the following statements:

- A. *Pizzeria Palermo Foods* treats people like me fairly and justly.
- B. Whenever *Pizzeria Palermo Foods* makes an important decision, I know it will be concerned about people like me.
- C. *Pizzeria Palermo Foods* can be relied on to keep its promises.
- D. *Pizzeria Palermo Foods* has the ability to accomplish what it says it will do.
- E. I feel very confident about *Pizzeria Palermo Foods'* skills.

**Organizational reputation.** Five seven-point Likert scale items were used to measure the perceived corporate reputation ( $M = 3.82$ ,  $SD = 1.60$ ; Cronbach's  $\alpha = .95$ ), which consists of two dimensions – products and service (2 times) and workplace

environment (3 items). Higher scores mean that the participants perceive the organization's reputation more favorably. The items were as follows:

**Products and services:**

- A. *Pizzeria Palermo Foods* stands behind its products and services.
- B. *Pizzeria Palermo Foods* offers high quality products and services.

**Workplace environment:**

- C. *Pizzeria Palermo Foods* is well managed.
- D. *Pizzeria Palermo Foods* looks like a good company to work for.
- E. *Pizzeria Palermo Foods* looks like a company that would have good employees.

**Organizational attitude.** Overall attitudes toward the organization were gauged with a global attitude measure adapted from Burgoon et al. (1978). It consisted of six semantic differential scales including: good/bad, positive/negative, wise/foolish, valuable/worthless, favorable/unfavorable and acceptable/unacceptable. All items were measured on a 7-interval scale. The overall mean of the organizational attitudes was 3.72 ( $SD = 1.58$ ). Higher scores mean that the participants have a positive attitude towards the organization.

**Purchase intentions.** Two seven-point Likert scale (1= strongly unlikely, 7 = strongly likely) items were used to measure participants' purchase intentions ( $M = 2.789$ ,  $SD = 1.618$ ; Cronbach's  $\alpha = .783$ ). Higher scores refer to a more positive purchase intentions the participants have toward the company. The items were:

- A. I will still consider *Pizzeria Palermo Foods* when I plan to buy a frozen pizza.
- B. I will hesitate in choosing *Pizzeria Palermo Foods* to buy a frozen pizza.

**Positive word-of-mouth (WOM).** Two seven-point Likert scale (1= definitely would not, 7= definitely would) items were used to measure participants' positive word-of-mouth (WOM) about the company ( $M = 2.379$ ,  $SD = 1.519$ ; Cronbach's  $\alpha = .962$ ). The higher the score, the more the participants would recommend *Pizzeria Palermo Foods'* pizza to their families or friends. Participants responded to these items:

- A. If your friend were shopping for a frozen pizza, how likely is it that you would recommend *Pizzeria Palermo Foods'* pizza?
- B. How likely would you recommend *Pizzeria Palermo* pizza to your family?

### **Hypotheses Testing and Answering Research Questions**

Current study aimed to examine the main effects of independent variables (crisis type, crisis response strategy, and medium) and the interaction effects of these independent variables on dependent variables (attribution of organizational crisis responsibility, trust, reputation, anger, attitudes, purchase intention, and positive WOM).

#### **Main Effects**

##### **Effects of crisis type on dependent variables**

The first set of hypotheses (H1-H4) and research questions (RQ1-RQ2) were proposed to test the effects of independent variables on dependent variables.

H1 predicted that participants in the victim crisis type would report less organizational crisis responsibility (H1a), better trust (H1b), better reputation (H1c), and more anger (H1d) than those in the preventable crisis type. A series of one-way ANOVAs were conducted to test the first set of hypotheses. One-way ANOVA results showed that there was a significant effect of crisis type on crisis attribution ( $F(1,458) = 272.295$ ,  $p < .001$ ). There were significant differences between the victim ( $M = 2.96$ ,  $SD = 1.40$ ) and preventable crisis ( $M = 5.09$ ,  $SD = 1.36$ ). H1a was supported.

H1b posited the effects of crisis type on organizational trust. Results showed that there was a significant effect of crisis type on trust ( $F(1,459) = 19.235, p < .001$ ). There were also differences between victim ( $M = 4.415, SD = 1.52$ ) and preventable ( $M = 3.76, SD = 1.66$ ) crisis types, in that, participants in the first condition reported higher organizational trust than those in the second condition. Therefore, H1b was supported.

Organizational trust consists of three sub-dimensions, including organizational integrity, organizational dependability, and organizational competence. Therefore, a MANOVA was conducted to see if there were group differences in the sub-dimensions of organizational trust. Results confirmed that there was a significant difference between victim and preventable crisis type on organizational trust ( $F(3,457) = 9.418, p < .001$ ; *Pillai's Trace* = 9.418). More specifically, an inspection of the mean scores indicated that victim crisis type reported slightly higher levels of organizational trust for all sub-dimensions including Dependability (victim  $M = 4.55, SD = .115$ ; preventable  $M = 3.86, SD = .114$ ), Integrity (victim  $M = 4.25, SD = .112$ ; preventable  $M = 3.72, SD = .112$ ), and Competence (victim  $M = 4.507, SD = .107$ ; preventable  $M = 3.75, SD = .106$ ).

In order to examine the effect size of crisis type on each sub-dimensions of trust, partial eta squared scores were calculated as follows: Integrity ( $F = 11.289, df = 1, p < .001, \text{partial eta squared} = .024$ ), Dependability ( $F = 17.933, df = 1, p < .001, \text{partial eta squared} = .038$ ), and Competence ( $F = 25.052, df = 1, p < .001, \text{partial eta squared} = .052$ ). Results indicated that crisis type represents 2.4%, 3.8% and 5.2% of the variance in Integrity, Dependability, and Competence, respectively. Tabachnick and Fidell (2013) suggest that eta squared scores from .06 (or 6%) to .137 (or 13.7%) are considered medium effects. Therefore, all three values are considered medium effects.

H1c posited the effects of crisis type on reputation. One-way ANOVA results showed that there was a significant effect of crisis type on reputation ( $F(1,459) = 42.130, p < .001$ ). There were differences between victim ( $M = 4.289, SD = 1.47$ ) and preventable crisis types ( $M = 3.36, SD = 1.58$ ) on reputation, in that victim condition reported higher reputation than preventable condition. Therefore, H1c was supported.

H1d predicted the effects of crisis type on anger. Results of one-way ANOVA revealed that there was a significant effect of crisis type on anger ( $F(1,459) = 4.208, p < .005$ ). Preventable ( $M = 3.780, SD = 1.50$ ) condition reported slightly higher scores of anger than victim ( $M = 3.49, SD = 1.51$ ) condition. Thus, H1d was supported.

### **Effects of organizational crisis responsibility on dependent variables**

The next set of hypotheses was proposed to examine the relationship between perceived organizational attributions of crisis responsibility and some dependent variables.

A series of linear regression analyses was conducted to test the second set of hypotheses. Results showed that perceived organizational attribution of crisis responsibility was a significant predictor for organizational trust (H2a) ( $\beta = -.358, t(459) = .8207, p < .001$ ), and it accounted for about 12.8% of the total variance of organizational trust. Therefore, H2a was supported. Furthermore, the attribution of organizational crisis responsibility was a significant predictor for reputation (H2b) ( $\beta = -.403, t(458) = -10.477, p < .001$ , with  $R^2 = .193, F(1, 458) = 109.770$ ).  $R^2$  values represented that the attribution of organizational crisis responsibility accounted for 19.3% of the total variance of organizational reputation. As such, the attribution of organizational crisis responsibility was a significant predictor for anger (H2c) ( $\beta = .146,$

$t(458) = 3.159, p < .005$ , with  $R^2 = .021, F(1, 458) = 9.977$ ), attitudes (H2d) ( $\beta = -.438, t(458) = -11.897, p < .001$ , with  $R^2 = .236, F(1, 458) = 141.531$ ), purchase intention (H2e) ( $\beta = -.369, t(458) = -9.303, p < .001$ , with  $R^2 = .159, F(1, 458) = 86.552$ ), and positive WOM (H2f) ( $\beta = -.312, t(458) = -8.241, p < .001$ , with  $R^2 = .129, F(1, 458) = 67.909$ ). More specifically, results indicated that the attribution of organizational crisis responsibility was negatively related to all dependent variables including reputation, trust, attitudes, purchase intention, and positive WOM. In addition, the results confirmed that the higher the attribution of organizational crisis responsibility reported, the more anger observed. Therefore, H2a to H2f were supported.

### **Effects of strategy on dependent variables**

H3 posited that the rebuilding strategy would lead to better trust (H3a), better reputation (H3b), and lower anger (H3c). One-way ANOVA results indicated that there was a significant effect of crisis strategy on organizational trust ( $F(1, 459) = 182.518, p < .001$ ). There were significant differences between the two conditions, in that rebuilding ( $N = 231, M = 4.95, SD = 1.34$ ) conditions reported higher trust than diminishment ( $N = 230, M = 3.21, SD = 1.41$ ) conditions. Hence, H3a was supported.

H3b predicted that the rebuilding strategy would lead to higher organizational reputation. One-way ANOVA results showed that there was a statistically significant difference in reputation for the two strategy groups: ( $F(1, 459) = 102.979, p < .001$ ). Therefore, H3b was supported. Participants in the rebuilding strategy reported higher reputation scores ( $N = 231, M = 4.507, SD = 1.453$ ) than those in the preventable condition ( $N = 230, M = 3.136, SD = 1.446$ ).

H3c predicted that the organization's denial strategy would lead to higher anger. Test of homogeneity of variances results observed that the assumption of homogeneity was violated (*Levene's test*  $F(1, 459) = 19.099, p < .001$ ). Using the Welch statistic, ANOVA results suggested that there was a significant effect of strategy on anger ( $F(1, 441.691) = 6.236, p = .013, p < .05$ ). Participants in the diminishment condition ( $N = 230, M = 3.81, SD = 1.34$ ) reported slightly higher levels of anger than those in the rebuilding ( $N = 231, M = 3.461, SD = 1.65$ ) condition. H3c was supported.

The first set of research questions asked the relationship between crisis strategy and the attribution of crisis responsibility (RQ1a), attitudes (RQ1b), purchase intention (RQ1c), and positive WOM (RQ1d). A series of one-way ANOVA was conducted to answer the first sets of research questions. Results suggested that there was no statistically significant effect of strategy on organizational crisis responsibility (RQ1a) ( $F(1, 458) = 1.297, p = .255$ ).

RQ1b asked the linkage between strategy and attitudes. Results showed that there was a significant effect of strategy on attitudes ( $F(1, 459) = 87.419, p < .001$ ). The mean differences between the two groups suggested that the rebuilding ( $N = 231, M = 4.35, SD = 1.41$ ) condition reported better attitudes towards the organization than the diminishment ( $N = 230, M = 3.09, SD = 1.48$ ) condition.

Levene's statistic results showed that the assumption for homogeneity of variance was violated for both purchase intention (RQ1c) ( $F(1, 459) = 3.985, p = .047, p < .05$ ) and positive WOM variables ( $F(1, 459) = 6.074, p = .014, p < .05$ ). Welch statistic results reported that there was a significant effect of strategy on purchase intention ( $F(1, 450.697) = 31.994, p < .001$ ). The mean differences between the two

groups were significant (diminishment ( $M = 2.37$ ,  $SD = 1.45$ ); rebuilding ( $M = 3.20$ ,  $SD = 1.67$ ).

Additionally, Welch statistic results suggested that the effects of strategy on positive WOM were significant ( $F(1, 454.845) = 22.612$ ,  $p < .001$ ) between the two groups. Participants in the rebuilding ( $M = 2.71$ ,  $SD = 1.55$ ) condition reported higher positive WOM than those in the diminishment ( $M = 2.05$ ,  $SD = 1.40$ ) condition.

### **Effects of medium on dependent variables**

The fourth set of hypotheses and research questions were proposed to examine the relationship between the medium and dependent variables.

H4 predicted that the Facebook and Blog posts would lead to better trust (H4a) and higher reputation (H4b) than the newspaper story. A series of one-way ANOVA results showed that there were no effects of medium on both trust ( $F(2, 458) = .227$ ,  $p = .797$ ) and organizational reputation. Therefore, H4a and H4b were not supported.

The second research question examined the effects of the medium on organizational attribution of crisis responsibility (RQ2a), anger (RQ2b), attitudes (RQ2c), purchase intention (RQ2d) and positive WOM (RQ2e). A series of one-way ANOVA results showed that there was no significant effect of medium on organizational attribution of crisis responsibility ( $F(2, 457) = 1.787$ ,  $p = .169$ ), anger ( $F(2, 458) = .941$ ,  $p = .666$ ), and positive WOM ( $F(2, 458) = .853$ ,  $p = .427$ ).

Also, MANOVA was conducted to see if there was any effect of medium on attitudes and purchase behavior intentions. MANOVA is an extension of ANOVA for use when two or more dependent variables are conceptually related (Pallant, 2013). As TRA suggests, attitudes predict behavior. Preliminary assumption testing was conducted to

check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance metrics, and multicollinearity, with no serious violations noted. The results showed that there was no significant difference among organizational Facebook, blog and newspaper on the attitudes and behavior intentions ( $F(4, 914) = .682, p = .605, Wilk's \Lambda = .976$ ). In all, there were no effects of the medium on all dependent variables.

### **Effects of trust on dependent variables**

The fifth set of hypotheses and research question examined the effects of trust on reputation, attitudes and purchase intention. A series of regression results indicated that trust was a significant predictor of organizational reputation (H5a) ( $\beta = .860, t(458) = 36.131, p < .001, with R^2 = .740, F(1, 459) = 1305.464$ ), attitudes (H5b) ( $\beta = .794, t(458) = 28.029, p < .001, with R^2 = .631, F(1, 459) = 785.630$ ), and purchase intention (H5c) ( $\beta = .559, t(458) = 14.436, p < .001, with R^2 = .312, F(1, 459) = 208.402$ ).

Therefore, H5a, H5b and H5c were supported.

RQ3 asked the linkage between trust and positive WOM. Regression results found that trust was a significant factor for positive WOM ( $\beta = .514, t(458) = 12.850, p < .001, with R^2 = .265, F(1, 459) = 165.122$ ).

### **Effects of reputation on outcome variables**

The sixth set of hypotheses posited the effects of reputation on attitudes (H6a), purchase intention (H6b), and positive WOM (H6c). A series of regression analyses results suggested that organizational reputation was a significant factor for predicting attitudes (H6a) ( $\beta = .881, t(457) = 39.851, p < .001, with R^2 = .776, F(1, 459) =$

1588.127), purchase intention (H6b) ( $\beta = .655$ ,  $t(457) = 18.582$ ,  $p < .001$ , with  $R^2 = .429$ ,  $F(1, 459) = 345.302$ ), and positive WOM (H6c) ( $\beta = .629$ ,  $t(457) = 17.323$ ,  $p < .001$ , with  $R^2 = .395$ ,  $F(1, 459) = 300.075$ ). Hence, H6a, H6b and H6c were supported.

### **Effects of anger on outcome variables**

H7 predicted that anger would lead to lower attitudes (H7a), lower purchase intentions (H7b), and lower positive WOM (H7c). Results of the regression analyses suggested that anger was a significant predictor of lower attitudes (H7a) ( $\beta = -.292$ ,  $t(458) = -6.536$ ,  $p < .001$ , with  $R^2 = .085$ ,  $F(1, 459) = 42.716$ ), lower purchase intention (H7b) ( $\beta = -.281$ ,  $t(458) = -6.279$ ,  $p < .001$ , with  $R^2 = .079$ ,  $F(1, 459) = 39.420$ ), and lower positive WOM (H7c) ( $\beta = -.194$ ,  $t(458) = -4.244$ ,  $p < .001$ , with  $R^2 = .038$ ,  $F(1, 459) = 18.012$ ). In all, anger was negatively associated with attitudes, purchase intention, and positive WOM. Therefore, H7a, H7b and H7c were supported.

### **Relationship between attitudes and behavioral intentions**

The eighth set of hypotheses posited that attitudes would positively predict purchase intention (H8a) and positive WOM (H8b). A series of regression analyses revealed that attitudes predicts purchase intention ( $\beta = .691$ ,  $t(458) = 20.491$ ,  $p < .001$ , with  $R^2 = .478$ ,  $F(1, 459) = 419.900$ ) and positive WOM ( $\beta = .692$ ,  $t(458) = 20.519$ ,  $p < .001$ , with  $R^2 = .478$ ,  $F(1, 459) = 421.013$ ). H8a and H8b were supported.

### **Interaction Effects**

#### **Interaction Effects of crisis type and strategy on dependent variables**

The fourth set of research questions examined the interaction effects of crisis type and strategy on dependent variables. Results of the two-way between-groups

ANOVA found that there were no interaction effects between crisis type and strategy on the organizational crisis attribution (RQ4a) ( $F(1, 457) = 2.955, p = .086$ ), trust (RQ4b) ( $F(1, 457) = 2.18, p = .100$ ), reputation (RQ4c) ( $F(1, 457) = 2.633, p = .105$ ), emotion (RQ4d) ( $F(1, 457) = 1.297, p = .255$ ), attitudes (RQ4 e) ( $F(1, 457) = 2.165, p = .142$ ), purchase intention (RQ4f) ( $F(1, 457) = .332, p = .565$ ), and positive WOM (RQ4g) ( $F(1, 457) = .745, p = .389$ ). As confirmed in the previous hypotheses, only main effects of each variable, i.e., crisis type and responses, on dependent variables were observed.

### **Interaction effects of crisis responses and medium on dependent variables**

The fifth set of research questions asked if there were any interaction effects between crisis responses and medium on dependent variables. Results of the two-way between-groups ANOVA revealed that there were no interaction effects on the organizational crisis attribution (RQ5a) ( $F(2, 454) = 1.264, p = .283$ ; no main effects), trust (RQ5b) ( $F(2, 455) = 1.416, p = .244$ ; only strategy main effects), reputation (RQ5c) ( $F(2, 455) = 2.628, p = .073$ ), only strategy main effects), emotion (RQ5d) ( $F(2, 455) = .636, p = .530$ ; only strategy main effects), attitudes (RQ5e), ( $F(2, 455) = 2.332, p = .098$ , only strategy main effects), purchase intention ( $F(2, 455) = 1.782, p = .169$ ; only strategy effects). There were interaction effects only on positive WOM ( $F(2, 455) = 3.448, p < .05$ ), with small effects size (*partial eta squared* = .015). Results for the main effects were consistent with those of previous hypotheses testing. That is, there were no main effects of either strategy or medium on the attribution of crisis responsibility. For the rest of the dependent variables (i.e., trust, reputation, emotion, purchase intention, and positive WOM), only main effects strategy were observed.

### **Interaction effects of crisis type and medium on dependent variables**

The last set of hypotheses predicted that the participants in the victim crisis type and the social media condition will report less organizational crisis responsibility (H9a), higher trust (H9b), higher reputation (H9c), more anger (H9d), better attitudes (H9e), high purchase intention (H9f), and more positive WOM (H9g) than will those in a preventable and traditional media condition. Two-way between-groups ANOVA results showed that there were no interaction effects on the organizational crisis attribution ( $F(2, 454) = 2.15, p = .807$ ), trust ( $F(2, 455) = .965, p = .382$ ), reputation ( $F(2, 455) = .580, p = .560$ ), anger ( $F(2, 455) = .632, p = .532$ ), attitudes ( $F(2, 455) = .232, p = .793$ ), purchase intention ( $F(2, 455) = .155, p = .856$ ), and positive WOM ( $F(2, 455) = .125, p = .882$ ). For all the dependent variables, only the main effects of crisis type were observed, which were consistent with the previous hypotheses testing in this study.

Table 4-1. Demographic profiles

Variables	Value	Frequency	Percentage (%)
Gender	Male	255	55.3
	Female	206	44.7
Age (years)	19	2	4
	20-29	194	42.1
	30-39	140	30.4
	40-49	65	14.1
	50-59	39	8.5
	60-69	17	3.7
	70-79	4	.9
Ethnicity	Caucasian / White	350	75.9
	Hispanic or Latino	29	6.3
	African American	29	6.3
	Native American or American Indian	3	.7
	Asian	41	8.9
	Other	9	2.0
Education	No schooling completed	0	0
	Nursery school to 8th grade	2	.4
	High school or equivalent	47	10.2
	Vocational/technical school (2 year)	29	6.3
	Some college	141	30.6
	Bachelor's degree	195	42.3
	Master's degree	36	7.8
	Doctoral degree	5	1.1
	Professional degree (MD, JD, etc.)	6	1.3
	Other	0	0
TOTAL		461	100

Table 4-2. The effect sizes of crisis type on sub-dimensions of Trust

Sub-dimensions of Trust	Eta-squared (% of variance explained)	Effect size
Integrity	.024 (2.4%)	Medium
Dependability	.038 (3.8%)	Medium
Competence	.052 (5.2%)	Medium

Note: Tabachnick and Fidell (2013) suggests Eta squared value and effect size as follow: Eta squared .01 (or 1%) represents small effects size; Eta squared .06 (or 6%) represents medium effect size; and Eta squared .138 (or 13.8) represents large effect size.

Table 4-3. Participants in each manipulation condition

Cell	Independent variable: Crisis type	Independent variable: Crisis response	Independent variable: Medium	Total
1	Victim	Rebuilding	Facebook	36
2	Victim	Rebuilding	Blog	38
3	Victim	Rebuilding	Newspaper	40
4	Victim	Diminishment	Facebook	38
5	Victim	Diminishment	Blog	39
6	Victim	Diminishment	Newspaper	40
7	Preventable	Rebuilding	Facebook	38
8	Preventable	Rebuilding	Blog	39
9	Preventable	Rebuilding	Newspaper	40
10	Preventable	Diminishment	Facebook	35
11	Preventable	Diminishment	Blog	40
12	Preventable	Diminishment	Newspaper	39
	TOTAL			461

Table 4-4. Means and standard deviation for dependent variables

Variables	M	SD
Overall: Attribution of crisis responsibility (Cronbach's $\alpha = .909$ )	4.02	1.75
The crisis is the fault of Pizzeria Palermo Foods.	4.500	2.015
The blame for the crisis lies in Pizzeria Palermo Foods.	4.506	2.003
External sources, other than Pizzeria Palermo Foods, caused the crisis.	3.180	1.918
The blame for the crisis lies in the outside, not Pizzeria Palermo Foods.	3.910	1.962
Overall: Anger angry, irritated, annoyed	4.080	1.930
Overall: Organizational Trust (Cronbach's $\alpha = .949$ )	4.09	1.63
Organizational Integrity (2 items):		
Pizzeria Palermo Foods treats people like me fairly and justly.	4.069	1.693
Whenever Pizzeria Palermo Foods makes an important decision, I know it will be concerned about people like me.	3.905	1.885
Organizational Dependability (1 item):		
Pizzeria Palermo Foods can be relied on to keep its promises.	4.208	1.771
Organizational Competence (2 items):		
Pizzeria Palermo Foods has the ability to accomplish what it says it will do.	4.562	1.749
I feel very confident about Pizzeria Palermo Foods' skills.	3.696	1.821
Overall: Organizational reputation (Cronbach's $\alpha = .95$ )	3.82	1.60
Products and services (2 times):		
Pizzeria Palermo Foods stands behind its products and services.	4.412	1.835
Pizzeria Palermo Foods offers high quality products and services.	3.861	1.730
Workplace environment (3 item):		
Pizzeria Palermo Foods is well managed.	3.646	1.773
Pizzeria Palermo Foods looks like a good company to work for.	3.555	1.753
Pizzeria Palermo Foods looks like a company that would have good employees.	3.642	1.684

Table 4-4. Continued

Variables	M	SD
Overall: Organizational Attitudes	3.72	1.58
Bad / Good		
Negative / Positive		
Worthless / Valuable		
Unfavorable / Favorable		
Unacceptable / Acceptable		
Foolish / Wise		
Overall: Purchase intentions (2 items; Cronbach's $\alpha = .783$ )	2.789	1.618
I will still consider Pizzeria Palermo Foods when I plan to buy a frozen pizza.	2.898	1.831
I will hesitate in choosing Pizzeria Palermo Foods to buy a frozen pizza.	2.681	1.739
Overall: Positive word-of-mouth (WOM) (2 items; Cronbach's $\alpha = .962$ )	2.379	1.519
If your friends are shopping for a frozen pizza, how likely is it that you would recommend Pizzeria Palermo Foods?	2.390	1.522
How likely would you recommend Pizzeria Palermo pizza to your family?	2.369	1.573

## CHAPTER 5 DISCUSSION AND CONCLUSIONS

This chapter provides a summary of the findings with theoretical and practical implications of the study. Additionally, this section also presents limitations of the current study and direction for future research.

### **Summary of Key Findings**

Guided by situational crisis communication theory (SCCT) and the theory of reasoned action (TRA), this study examined 1) the main effects of crisis type, crisis response strategy, and medium (independent variables), and 2) the interaction effects of these independent variables on the attribution of crisis responsibility, trust, reputation, emotion, attitudes, purchase intention, and positive WOM (dependent variables). Furthermore, this study also explored 3) the individual effects of organizational crisis attribution, trust, reputation, emotion and attitudes on outcome variables.

Nine sets of hypotheses and five sets of research questions were proposed to examine the relationships among the variables. A summary of key findings is provided below.

First, in regard to the main effects of independent variables on dependent variables, all the hypotheses were supported and research questions found significant effects, except a few cases. Those exceptions included 1) the main effects of medium on all dependent variables, and 2) the effects of the response strategy on the attribution of organizational crisis responsibility. Past research in crisis communication observed that the rebuilding strategy lead to lower attribution of crisis responsibility in the organization, however, this study did not find statistically significant effects of strategy on responsibility attribution.

Second, with regard to the main effects of medium on dependent variables, this study found no significant effects of medium in any of the dependent variables. Previous studies on the medium effects have found that medium affects the evaluation of an organization such as reputation, trust, credibility, satisfaction and so forth. However, no significant effects of medium on dependent variables were observed in the current study.

Third, this study investigated the interaction effects of 1) crisis type and strategy, 2) crisis type and medium, and 3) crisis strategy and medium on the dependent variables. A series of two-way ANOVA results found no interaction effects on any of the dependent variables. As confirmed in the main effect hypotheses testing detailed in the findings (Chapter 4), only main effects of crisis type and crisis strategy on dependent variables were observed.

### **Theoretical Implications**

One of the main theoretical contributions of this study is that it extends the SCCT theory by examining the main and interaction effects of variables in a food recall crisis. In addition, the linkage between attitudes and behavior intentions was confirmed, extending the theory of reasoned action (TRA) by measuring positive WOM in a product recall crisis context.

### **The role of crisis type and the attribution of crisis responsibility in a food product recall crisis**

One of the major contributions of the current study is that it examines the direct linkage between crisis type and stakeholders' outcomes. The original SCCT model (Coombs, 2007) tested only the linear relationship between the attribution of

organizational crisis responsibility and outcomes. Little attention has been paid to understand the direct effects of crisis type on outcomes. Findings of this study extended previous research by revealing the direct relationship between crisis type and the evaluation of the organization (trust, reputation, attitude, and supportive behaviors), which were all supported. Among the three crisis clusters (i.e., victim, accidental and preventable crisis clusters) suggested by SCCT, the current study examined two crisis types— victim and preventable crises clusters. The comparison of these two crisis clusters is meaningful because it demonstrates different levels of crisis responsibility. Crisis responsibility, again, is the key in SCCT as it affects organizational crisis response strategies and stakeholders' affective and behavioral support for the organization.

The victim crisis produces minimal attributions to the organization's crisis responsibility, while the intentional crisis results in a strong attribution of responsibility (Coombs, 2004). Past research has reported similar findings with regards to the linkage between crisis type and attribution of crisis responsibility. Studies have found that such a crisis type in which the locus of a crisis is found within the organization (i.e., preventable crisis type) is more likely to bring about higher attribution of the organizational responsibility for the crisis (Lee, 2004, 2005; Kim, Kim & Cameron, 2009).

With regard to the linkage between crisis type and trust, scholars have observed that the public expresses more negative reactions toward the organization when they judge that a crisis is caused internally (Weiner, Amirkhan, Folkes, & Verette, 1982). Likewise, Lee (2004, 2005) found that individuals who are exposed to an organizational

crisis with an internal cause showed less organizational trust than those who read about an organizational crisis with an external cause.

Emotion has been a critical factor in understanding post crisis communication effects. Studies suggested that public's negative emotions, such as anger, are evoked more when the crisis is intentional than in non-intentional negative events (Jin, 2010). In this sense, those preventable crisis types such as human error product recalls, could result in more anger than victim crisis types such as product tampering (Coombs & Holladay, 2005; Choi & Lin, 2009), which are consistent with the findings of the current study.

Also, the current study confirmed the effects of crisis type on reputation. Crisis literature has suggested that the public perceives the organization's reputation less favorably in the case of a preventable crisis than in the cases of both the victim and the accidental crisis type (Claeys, Cauberghe & Vyncke, 2010).

Crisis type is highly correlated with the attribution of crisis responsibility (Coombs, 2007). SCCT identifies three crisis clusters that bear different levels of organizational responsibility for the crisis. The preventable crisis type assumes the strongest organizational responsibility for the crisis, while victim crisis involves the weakest organizational crisis responsibility (Coombs, 2004, 2007). Past research has shown that the higher an organization's responsibility is assumed, the more negative effects on the evaluation of the organization, particularly on its reputation. The effects of crisis type on reputation, however, haven't been consistent. Utz et al., (2013) compared the effects of two extreme crisis types, intentional and victim, on reputation and observed no impact of crisis type on reputation. One of the plausible explanations for

these mixed findings could be the use of real or hypothetical crisis cases. They used the Fukushima Daiichi nuclear disaster, which was a real crisis, and this might reduce the direct effects of crisis type on the evaluation of the organization (Utz et al., 2013).

Results of the current study found the effects of attribution of crisis responsibility on all dependent variables. SCCT suggests that a preventable crisis assumes the strongest organizational responsibility for the crisis, while victim crisis type implies the weakest organizational responsibility for the crisis. Findings of the current study confirmed those of past research in that higher organizational attribution of crisis responsibility lead to the public's lower evaluation of the organization, such as reputation (Coombs, 1995; Coombs & Holladay, 2008), and emotion (McDonald, Sparks & Glendon, 2010).

Another contribution of this study is that it examined the public's attitudes as an outcome variable. Coombs and Holladay's refined model of SCCT (2002) predicted that the more crisis responsibility is attributed to an organization, the more negative reaction is expected from stakeholders. For instance, people's reaction to an accident can be totally different depending on whether the event is deemed intentional (e.g., human error) or unintentional (e.g., technical breakdown) actions. Therefore, Coombs and Holladay continuously emphasized the receivers' perspective in crisis research, which leads researchers to begin to explore whether stakeholders evaluate crisis response strategies the way organizations assume they will (Lee, 2005). Earlier in this document, scholarship was reviewed that suggested that people tend to identify who is responsible when an organization's behavior has negative consequences (Shaver, 1975, 1985; Shaver & Drown, 1986). Weiner (1995) articulated that attribution should be evaluated

before measuring cognitive and affective reactions. In summary, the scholarship suggests that the audience's judgment of crisis responsibility should be the grounding factor for organizations in the selection of responses. Extending this line of thought, Lee (2005) examined how the interplay among the attribution following a crisis (internal or external), different crisis response strategies (e.g., shifting the blame to apology), and the severity of a crisis (severe or extremely severe) could affect people's attitudes and behavioral intentions toward the organization in the context of Hong Kong. Lee's study observed that the more the participants believe the organization to be responsible for the crisis, the lower degree of impression toward and trust in the organization was detected.

### **Crisis strategy as a predictor for outcomes**

Findings of the current study found the effects of strategy on dependent variables, which supported the assumptions of SCCT. One exception was the effect of strategy on the attribution of organizational crisis responsibility, which will be discussed later.

According to SCCT, both crisis type and strategy are expected to shape the public's perceived organizational reputation. Crisis communication studies have observed that the public evaluates an organization's reputation more positively when the organization used rebuilding strategies (i.e., accepting its responsibility and making efforts to manage the crisis) than diminish strategies (i.e., the organization tries to avoid or minimize its responsibility for the crisis) (Claeys et al., 2010).

Scholars have suggested that with those strategies that admit greater amount of acceptance of responsibility for the crisis, the better public impression the organization

is maintained, which, in turn, leads to more trust in the organization and a higher degree of consumption intention (Lee, 2005). More specifically, Lee (2004, 2005) investigated how different crisis response strategies might affect the public's perception of trust among consumers in Hong Kong. She used hypothetical scenarios about an airplane crash and observed that participants showed less trust toward the organization when they are exposed to denial response strategies than acceptance response strategies. However, research on trust has suggested some mixed findings. Huang (2008) explored how crisis response strategies and form (timely response, consistent response and active response) may result in organizational trust by surveying public relations, crisis communication, public affair managers from top 500 companies in Taiwan. Huang found that while the form of crisis communication contributed to explaining the variance of trust, communication strategies did not show explanatory power in predicting organizational trust. However, the findings of Huang's study should be interpreted with a caution, because that study did not specify whether those strategies match with crisis type as suggested by SCCT. As SCCT suggests, crisis response strategies should be chosen strategically depending on the type of crisis, because each crisis type results in different levels of crisis responsibility.

Concerning the effects of strategy on emotion, results of the current study also found that the rebuilding strategy resulted in lower negative emotions, which confirmed the findings of previous research on the effects of strategy on emotions (e.g., Coombs, 1998, 1999). Results of the current study responded to the suggestions for future research. Coombs and Holladay (2007), for instance, suggested future research to explore reliable indicators of anger and suggested that crisis researchers "must explore

how crisis response strategies can be used to blunt stakeholders' anger" (p. 308). In 2005, Coombs and Holladay observed that crisis responsibility is positively related to anger and schadenfreude, while negatively related to sympathy. In order to extend the understanding of the links between crisis communication and emotions, the current study examined how different crisis response strategies that demonstrate different levels of acceptance of crisis responsibility might affect publics' negative emotions.

In regards to the relationship between strategy and attitudes and behavior intentions, the current study aimed to compare the main effects of two extreme crisis response strategies, diminishment and rebuilding, on the attitudes and behavioral intentions, which have been little examined in previous research. A recent study by Schutlz et al., (2011) examined the effects of three different responses (sympathy, apology, and (crisis) information) on the intention to share the information, to leave a message and to boycott products. In contrast to general assumptions that suggest that apology leads to less negative reactions to the organization than other crisis responses, their findings suggested that providing basic information about the crisis resulted in less negative reactions to the organization than sympathy or apology. Findings of the current study observed that the rebuilding strategies yielded better attitudes and higher purchase intentions.

This can be best explained by what SCCT suggests. According to SCCT (Coombs, 2007), instructing and adjusting information (information in which an organization represents care for the affected stakeholders) is needed for both low and strong attribution of crisis responsibility. Rebuilding strategy manipulation for the current

study included not only compensation/apology, but also instructing and adjusting information, which in turn, resulted in a better evaluation of the organization.

One of the interesting findings of current research was that there were no significant effects of strategy on the attribution of crisis responsibility. Most of the past research on crisis responses has established a significant linkage between crisis responses and the attribution of crisis responsibility (Coombs, 2004a; Coombs & Holladay, 1996; Coombs & Holladay, 2002; Coombs & Holladay, 2006). Recently, one study revealed that there were no significant differences in the level of the attribution of crisis responsibility among the five crisis responses (Base (instructing + adjusting information) vs. Base + Denial vs. Base + Rebuilding vs. Denial vs. Rebuilding) (Kim & Sung, 2014). Attribution theory based crisis communication approach (Coombs, 2007) suggested that all victims should be provided with the compensation strategy along with the base responses. Base responses should contain both instructing information – including recall information– and an expression of sympathy with any information about corrective actions and trauma counseling information when needed. What was missing in the strategy manipulation of the current study was the information about trauma counseling for the victims and their families. The effects of crisis responses might have been stronger if the current study had included the trauma counselling information, which calls for further research.

### **Trust as an antecedents of quality outcomes and corporate reputation**

Past research has examined the roles of trust at the organizational level in which risk and conflict are involved. Huang (2001) revealed that the public's perceived trust toward an organization can mediate the role of public relations efforts in resolving

conflicts. The current study confirmed that the public's higher trust in an organization lead to higher (greater) organizational reputation, better attitudes, higher purchase intentions and higher positive WOM.

Ever since Ferguson (1984) suggested that relationship should be the central focal interests in public relations, the organization-public relationships (OPR) has been widely examined. Literature on OPR has suggested two different approaches in defining and measuring the concept, which involves relationships either as process or outcomes. Despite two different approaches, the value of quality relationships between an organization and its publics has continuously been recognized in public relations as well as in other scholarly disciplines. Public relations scholars have suggested several sub-dimensions of OPR including trust, openness, or commitment. Among them, trust has been suggested as one of the critical outcomes not only in public relations, but also in crisis communication research (e.g., Yang & Grunig, 2005; Lee, 2005; Swift, 2001).

In public relations, scholars have made efforts to establish public relations as 'relationship management' function. Cutlip, Center, and Broom (2000, originally 1985), for example, defined public relations as: "the management function that establishes and maintains mutually beneficial relationships between an organization and the publics on whom its success or failure depends" (p. 1). This definition affirms that quality relationships lead to quality outcomes. That is, relationships between an organization and its publics works as virtuous circle which begins with defining a strategic public and developing and maintaining good relationships with it, which produces beneficial outcomes for both parties.

Quality relationships have been distinguished as a strategic indicator, which contributes to beneficial organizational assets, such as reputation, in many disciplines that includes public relations, business, and social psychology. Social psychologists have found that interpersonal relationships affect evaluating one's reputation. The process of building and maintaining relationships among others is known as relational schema (Planalp, 1987), which has been known to influence the perception of the relationships. Scholars have supported that relational schemas are elaborated overtime and play a critical role in shaping reputation of others (Chartrand, Dalton, & Fitzsimons, 2007).

From the perspective of business and management, scholars maintained that organizations should manage quality long-term relationships with constituencies to cultivate good reputation (Shultz, Hatch, & Larsen, 2000; Knox, Maklan, & Thompson, 2000). Rindova and Kotha (1998) examined how strategic actions help in garnering positive reputation in the e-commerce market. These involve three specific actions: first, symbolic actions, such as positioning the organization as the leading e-commerce businesses in the industry, second competitive action refers to creating a new paradigm for the industry. For instance, Amazon.com' is an "online version" of bookstore. Lastly, relational actions, such as using technology to enhance interactions between the organization and consumers that can contribute to better relationships.

Fombrun (1996), a founder of the Reputation Institute and an editor of Corporate Reputation Review, also argued that good relationships lead to favorable organizational reputation as follows:

To acquire a reputation that is positive, enduring, and resilient requires managers to invest heavily in building and maintaining good relationships with their company's constituents (p.57).

In predicting a quality reputation, scholars expanded the observation to an organization's societal role in that an organization's socially responsible behaviors help building a good reputation (Fombrun & Van Riel, 2003).

In public relations, scholars also examined how reputation is affected by relationships. J. Grunig and Hung (2002) showed that an organization's reputation could be explained by the quality of its relationships with publics. Yang (2005) and Yang and J. E. Grunig (2005) extended this research and developed structural equation models showing that the reputation of an organization can be managed through quality relationships with its publics. Similar to what Fombrun and Van Riel (2003) found, Yang and J. Grunig suggested that an organization's socially responsible decisions can cultivate good relationships with its publics which, lead to positive reputations.

Yang (2007) examined how organizational relational outcomes are associated with organizational reputation. Findings of the study mirror that of existing literature in that favorable organization can be achieved by quality relationships between an organization and its publics. Sung and Yang (2009) also supported the links between relationships and reputation in that the quality relational outcomes are positively associated with students' perceived university reputation.

Understanding reputation in a crisis context, Bromley (1993) and Nielsen (2005), leading scholars and professionals in reputation, pointed out that organizational reputation should be managed strategically because it can be easily harmed by organization's negative misdeeds. In relation to reputation to relationship management,

crisis communication research supported that favorable relationships can affect positive organization's reputation (Coombs, 2000; Coombs & Holladay, 2001).

With regard to the linkage between trust, attitudes and behavioral intentions, findings of the current study observed that trust was a significant predictor of attitudes, purchase intentions, and positive WOM. This confirmed the findings of existing literature.

Scholars have maintained that trust enhances one's commitment to partner relationships. Morgan and Hunt (1994) held that in relationships in which trust is highly valued, people keep committing themselves to maintaining such relationships. In this vein, Spekman (1988) emphasized the critical role of trust in relationship building in that trust is "the cornerstone of the strategic partnership" (p.79). In a similar vein, McDonald (1981) stated that mistrust hinders commitment in quality relationships.

Public relations scholarship has suggested the positive linkages between relational outcomes and attitude and behavior intent. For instance, previous research on OPR observed a significant positive effect of OPR on publics' intentions toward supportive behaviors. For instance, the Excellence study (L Grunig et al., 2002) and J. Grunig and Hung (2002) suggest that quality relational outcomes drive publics' supportive behaviors such as donations and favorable legislation which eventually affect sales and therefore prevent unsupportive behaviors (e.g., strikes, litigation, boycotts, over-regulation). Recently, Ki (2013) observed that customers who displayed better relational outcomes such as satisfaction and trust, showed more favorable attitude and supportive behavior intent toward their primary banks. However, some studies did not support the path from trust to attitude in other context than consumer relations. For

instance, Ki and Hon (2007), who examined how university students' trust they hold toward the university they attend affect attitude, observed that trust did not affect attitude and behavioral intentions. Instead, they found that relational satisfaction was the strong indicator of attitude and behavioral intentions for university students. More recently, Kang (2013) examined how relational gaps, i.e., the discrepancy between expected and the experienced OPR, might affect customers' attitudinal and behavioral intentions toward an Utilities Company. Unlike common sense, trust as a relational outcome, did not have much impact on customers' attitudes and supportive behavioral intentions toward the utility provider. As the author commented, some other factors, besides trust, should be considered when interpreting the findings of the study. For instance, research has observed that product category is a critical factor in determining purchasing behavior.

With respect to trust and behavioral commitment in post-crisis communication, Siomkos and Shrivastava (1993) empirically demonstrated that customers' trust toward an organization can increase repurchase intentions after a crisis is resolved. Lee (2005) reported the positive links between the two variables. She found that subjects' higher perception of the organizational trust lead to higher degree of consumption intention for an airline crash. Taking into account the above discussion, communication research has observed that trust plays a critical role in a post crisis communication, especially with regards to behavioral intentions. Findings from previous studies imply that public relations efforts can build trust among publics, which then can engender positive attitudes as well as supportive behaviors toward the organization. This implies that key publics who have positive perception of an organization are more likely to remain

customers even when they face negative experiences with the organization and when comparable consumptions are available (Ki, 2013).

With regard to the association between relational outcomes and behavioral intent, Hong and Yang (2009) surveyed consumers on their intent to engage in positive WOM for the actual two companies, Apple and Starbucks. Among the six relational outcomes, they only examined the impact of relational outcomes, which was found to have positive effects on favorable WOM. The current study posed a question about how perceived trust that publics hold toward an organization would affect their intention to positively spread about the company, which recently experienced a crisis. The current study confirmed that reputation was a significant factor for explaining attitudes, purchase intention, and positive WOM.

Over the years, the link between reputation and its attitudinal and behavioral outcomes have been considerably examined in public relations. Fombrun (1996) suggested that a good reputation can result in a positive attitude as well as further affirmative behaviors toward the organization. Fombrun (1996) conceptualized the relationship between “reputation capital” and corporate wealth in the following way: “Corporate reputations influence the products we choose to buy, the securities in which we invest our savings, and the job offers we accept.

Scholars maintained that the organization’s good reputation is important in its operations because it “produces support for the company” (Fombrun & van Riel, 2003, p.5). In understanding the linkage between reputation and behaviors, several types of behavioral outcomes have been investigated including publics’ ongoing interaction with

the organization, engagement in positive WOM (e.g., Ki & Hon, 2007b; Mittal, Kumar, & Tsiros, 1999; Reynolds & Beatty, 1999; Swan & Oliver, 1989).

Past studies on the linkage between OPR and WOM have been consistently observed that publics' positive perception of OPR have the positive effects on their engagement of positive WOM. As an extension of this line of research, Hong and Yang's (2011) study on how consumers' relational satisfaction and perceived reputation toward the food company shape their behaviors suggested both variables have positive influences on publics' attitudinal and behavioral outcomes such as engagement with WOM, the use of organizational media and the ongoing interaction. These suggest that the better publics' perception of an organization, the more they tend to talk positively about the organization. In addition, the more publics favorably perceive the organization, the more they pay attention to message through organizational media as well as to shop at the organization. The findings of this study offer support for Hong and Yang's (2009) finding that publics' favorable reputation with the organization has an positive impact on intent to positive spread about the organization. Sung and Yang (2009) also observed that students' perceived reputation of the university had a positive and significant effect on their supportive behavior intentions.

### **The role of emotion and attitudes in post-crisis communication**

The current study found the effects of emotion on outcome variables. More specifically, findings showed that negative emotions, such as anger, lead to higher negative attitudes, lower purchase intentions, and lower positive WOM. As such, the findings of the current study answered the call for more research on the effects of emotion in crisis communication (Coombs & Holladay, 2007). Future research should

examine the mediating role of emotion in post crisis communication procedures. A recent study observed that besides the crisis-response strategy (diminish vs. rebuild), the communicated emotion (i.e., shame and regret) has a positive effect on corporate reputation (van der Meer & Verhoeven, 2014). Future research might explore issues such as how stakeholders' evaluation of the organization might differ depending on the presence/absence of emotional presentation in post crisis communication.

Results of the current study revealed that attitudes are a significant predictor for behavior intentions, which confirmed the existing research. Furthermore, this study extended prior work on the theory of reasoned action (TRA) by looking at the effects of attitudes on secondary crisis communication intentions, such as word-of-mouth (WOM), which was supported in this study.

Seeking to understand behavior intention in the education context, Chen and Chen (2006) found that attitudes and subjective norms predicted the faculty's intention to participate in teaching online courses. With regard to purchase intention, Tsai and colleagues (2010) observed that consumers' attitudes promoted their intentions to purchase nutraceuticals.

The relationship between attitude and behavioral intention has been important in public relations as the association between the two variables can be used in evaluating the effectiveness of public relations programs. Recently, Ki (2013) found that customers with more favorable attitudes showed more supportive behaviors toward their primary bank. Earlier, Ki and Hon (2007), who investigated the university/student relationship as it associates to students' behavioral intentions, found that attitude is a strong and significant indicator of supportive behavioral intentions. More recently, Kang (2013)

supported findings of previous studies concluding that the more positive attitudes customers held toward a utility company; the less they intend to switch to another utility provider.

In particular, purchase intention has been important in crisis communication research as buying intention represent critical behavioral consequence of consumers (Jorgensen, 1996). Kim (2009) examined how different product categories (high vs. low product attributes) might affect consumers' attitude toward the organization and its link to purchase intentions. Product attributes refer to "a product's physical composition or a service's requirements" (Kim, 2009, p, 9). The concepts of product attributes are used when consumers are in need of determining the nature and the quality of product performance (Keller, 1998). Kim (2009) found that consumers who experienced a crisis that involves high product attributes (such as computers) showed negative attitudes toward the company, which leads to less intention to purchase a computer from the company.

### **The role of the medium in post-crisis communications**

Responding to the calls for moving beyond print media in investigating the role of media in crisis communication (Coombs & Holladay, 2009), this study investigated the role of social media compared to traditional media (Facebook vs. blog vs. newspaper) within the SCCT model, which has been recently explored in crisis communication research. Results of the current study detected no significant effects of medium on all dependent variables.

In fact, previous studies on communication channel have yielded mixed findings of the effects of channel/medium on the public's reactions to crises. Comparing the

relative effects between print and video channel on four outcome variables, Coombs and Holladay (2009) found that media channel had effects only on reputation, but not on anger, negative WOM, or account acceptance. Although participants in the print condition reported higher levels of organizational reputation than those in the video condition, the authors noted that the effects size was very small, which lead to almost no theoretical and practical concerns. Recently, the effects of medium have been re-emphasized in public relations scholarship as social media has been a prevalent part of public relations practice. On the other hand, some reported the significant effects of medium on outcome variables. Yang and Lim (2009), for instance, observed that organizational communication via corporate blogs results in higher organizational credibility and reputation than communication via traditional media such as newspapers. Kelleher (2009) found that personal characteristics such as conversational human voice on organizational blogs leads to positive outcomes such as organizational trust, satisfaction and commitment.

Moving to examining the effects of social media, a recent study has found that crisis communication via social media (Twitter and Facebook) leads to higher reputation, than that of via online newspaper (Utz et al., 2013). With regard to the relationships between the media and some other dependent variables, Utz et al., (2013) found that communicating crisis via traditional media (i.e., newspaper) leads to more secondary crisis communication (e.g., sharing information with others) than crisis communication via Twitter. However, no studies have examined the effects of media type on attitudes and behavioral intentions, which is a gap current study aimed to fill.

Results from the current study, however, did not mirror the findings of recent studies on social media. One possible explanation could be that the manipulations of medium used in the current study did not fully reflect the interactive features of social media. Crises are either social constructions or deconstructions influenced not only by organizations but also individual stakeholders' sense making it a process (Utz et al., 2013). Scholars, therefore, have argued that technologies that promote two-way communications with different types of public have potential to influence communication effects (Schultz et al., 2011). The effects of medium might have been observed if the interactive features were added to the current manipulations. Although the medium manipulation was found to be successful, future research should examine the effectiveness interactive features that allow two-way communications would help better understanding the role of the medium in post crisis communication process. Because past research found meaningful findings in the effects of different social media that used a real case (e.g., Fukushima Daiichi nuclear disaster case in Utz et al., 2013), more attention is required in media manipulations.

### **The interplay effects of crisis type, strategy and medium**

This study manipulated three independent variables, including crisis type, crisis responses and medium. The present study contributed to existing crisis communication research by examining the interaction effects of independent variables on outcome variables.

Although there was a match between crisis type and responses suggested by SCCT, findings of this study observed no interaction effects of crisis type and responses on all dependent variables.

A couple of studies found that there are no interaction effects of crisis type and response strategies on the attribution of crisis responsibility and reputation (Claeys et al., 2010; Brown & White, 2011). Unlike what SCCT suggests, the findings of previous research imply that the strategic matching between crisis type and response strategies did not influence public's perceived reputation compared with mismatched strategies. These findings did not mirror those of previous studies, which observed interaction effects of the two variables on outcomes (e.g., Coombs & Holladay, 1996). The contradictory findings can be explained by strategy manipulations. Whereas Coombs and Holladay (1996) used only one strategy in the manipulation, Claeys et al. (2010) combined two response strategies into one response.

No interaction effects were observed in the current study, which can be explained by different methodological approaches. While Coombs and Holladay (1996) used a within-subjects design, this study adopted a between-subjects design.

Kim and Sung (2014)'s study revealed that there is partial support for the interaction effects of crisis type and responses on the attribution of crisis responsibility. In the victim condition, no significant effects of strategies on the crisis attribution were observed, while significant differences were found in the preventable crisis. More specifically, the attribution of crisis responsibility was the highest when the basic response strategy was used alone, whereas it was the lowest when the basic and denial strategies were used. These findings seem to be contradictory to what SCCT suggests. According to SCCT, a matching between crisis type and responses should yield more positive evaluation of organizations. This means that, the lowest attribution of crisis

responsibility is expected when apology (combined with the basic information) is used for the preventable crisis.

Findings from the current and past research on the interaction effect of crisis type and responses call for further investigation of the matching process and its effects on outcome variables. Kim and Sung (2014) noted that the process of attitudes and behavior formation takes longer time, while the public's determination of the attribution of crisis responsibility might occur at one-time.

The current study examined the interaction effects of crisis responses (rebuilding vs. diminishment) and medium (blog vs. Facebook vs. newspaper) on the public's reaction to an organization, which were not supported. Schultz and colleagues (2011) have argued that media matters more than strategies in crisis communication. Grounded in the general perception that social media are more dialogic and interactive (e.g., Kent, Taylor, & White, 2003; White & Raman, 1999) than traditional media in building relationships, they examined the interaction effects between crisis responses (sympathy vs. apology vs. basic information) and medium (Twitter vs. Blog vs. Newspaper) on public's reaction to crisis situations. Findings revealed that strategies in the Twitter condition lead to less negative behavioral intentions, such as sharing the crisis information, commenting on the crisis information, and boycotting the organization.

Although no significant interaction effects were indicated, this study extends SCCT by taking into account the role of different media. Until now, the relative communication effects via Facebook and blog in comparison with traditional media have not been analyzed experimentally.

Crisis communication research has exhibited growing interest in understanding the effectiveness of online communication channel and social media during post crisis communication including corporate blogs, microblogs, websites and various social media (González-Herreo & Smith, 2008; Sweetser & Metzgar, 2007; Stephen & Malone, 2009; Taylor & Kent, 2007; Taylor & Perry, 2005).

Past research observed that the communication channel matters more than crisis messages in affecting public's reactions to crisis and intentions for secondary communication behaviors such as sharing information and leaving a message (Schultz, et al., 2011) and lowering crisis responsibility (Lee, Kim, & Wertz, 2014). Based on these findings, a recent study examined the interaction effects of crisis type (victim vs preventable) and medium (Facebook vs. Twitter vs. Newspaper) on attitudes behavioral intentions to see if the effects of medium would be stronger than those of crisis type (Utz, et al., 2013). They found that the effects of the medium on reputation, secondary crisis reaction and secondary crisis communication are stronger than the effects of crisis type. Again, the plausible explanation of no interaction effects between the two variables can be attributed to manipulations of the media adopted in this study. Although corporate blogs and Facebook were found to be successfully manipulated, the lack of interactive features can result in different findings from those of previous studies.

Even if findings of the current study did not indicate the interaction effects of crisis type and medium on the all dependent variables, these show theoretical implications. Past research has suggested that interactive features of social media, such as blogs, Twitter, and Facebook can be considered an appropriate tool for regaining relationships with publics, especially during crises (Bates & Calison, 2008),

because social media are more effective in that they allow immediate and direct two-way communications between the organization and publics. Research found that eighty percent of organizations made efforts to respond to crises within the first 24 hours of media coverage (Kim & Liu, 2012; Taylor & Kent, 2007), and these efforts contribute to reduce the uncertainty and the anxiety that publics often experience during crises (Veil et al., 2013; Seeger, 2006). SCCT recommends that companies facing a crisis be quick and try to have initial response within the first hour.

In sum, the current study investigated the interplay effects of crisis type, response and medium on stakeholders' outcomes in post-crisis communication process. The findings of the current study make contributions towards advancing knowledge within situational crisis communication theory. First, this study contributes to previous research by introducing the role of new factors involving organizational trust, attitudes and media in a food product recall crisis into the crisis literature. One implication of the current findings is that future SCCT model testing should focus on the role of perceived organizational trust to assess the contribution of organizational trust either as an antecedent and consequences of relationship quality outcomes.

In addition to exploring the role of perceived organizational trust, this investigation also helps confirm the role of attitudes in predicting behavioral intentions in SCCT. Given that most research on attitudes has been extensively examined within the framework of the theory of reasoned action in the context of education, health communication, consumer relationships, political communication and so forth, a smaller body of work has identified the effects of attitudes within a corporate product recall context. Moreover, the study of crisis responses has mostly focused on the role of

communication to generate better outcomes by reducing negative emotions and enhancing tarnished reputation. The role of attitudes has received only minimal attention in the crisis communication literature. Although caution is needed in the interpretation of the findings because the current study examined the SCCT model only in the food industry, this study's inclusion of a new factor, attitudes, helps provide needed examination of the linkage between attitudes and behavioral intentions within the corporate crisis sphere guided by SCCT.

Finally, in addition to examining behavioral intention as an outcome of post-crisis communication effects, the current study evaluated the theoretical scope of SCCT by investigating the word-of-mouth effects within the corporate crisis context. The overall support this study observed for the effects crisis communication efforts on the word-of-mouth intention as a secondary crisis communication behavior imply that more theoretical consideration should be given to the communication behavior intentions as consequences of public relations efforts in post-crisis communication phases.

### **Practical Implications**

The inconsistent findings about a match between crisis response strategy and crisis type in determining the attribution of crisis responsibility and the evaluation of an organization suggests valuable practical implications.

First, crisis managers should make sure to include both the base strategy and crisis response strategy that can best communicate the organization's stance. SCCT recommends that instructing information, which is one part of base response, should be delivered to stakeholders in both victim and preventable crises. Instructing information will help stakeholders understand what they can expect from the crisis, which will

reduce their anxiety level. As attribution theory and SCCT suggest, the absence of information can increase stakeholders' negative affect for, and attitudes towards, the organization, which in turn can affect their future interactions with the organization. In addition to instructing information, adjusting information which tells 'how' the affected people should cope with the crisis situations could help to reduce stakeholders' concerns for the crisis and to inform them the organization is making an effort to protect their stakeholders (Kim & Sung, 2014). Crisis managers should be ready to provide stress and trauma counseling to the affected stakeholders and their families. This holds true for any crisis types, especially when victims suffer serious harm (SCCT, 2007).

Second, determining a match between crisis type and responses should be taken into account along with the effects of intensifying factors, such as organization's prior reputation/relationship history, organization's past crisis history, the severity of the crisis and so forth. Coombs suggests that even in victim crisis types, which involves lower level of organizational crisis responsibility, excuse strategy will not be sufficient to repair damaged reputation and behavior intentions. Instead, the combination of instructing information (including recall information, for instance) and care responses that provide an expression of sympathy, any information about corrective actions and trauma counseling should be communicated. It will help victims to learn how much the organization accommodates victims of this crisis (those at risk or harmed by the crisis). This means that the response focuses more on helping the victims than on addressing organizational concerns (Coombs, 2007).

Third, crisis managers should understand that lowering public's determination of the attribution of crisis responsibility and enhancing their evaluation of an organization

might be taken as different tasks. When planning the communication goals, crisis managers might take into account that lowering the crisis responsibility should be considered as a short-term goal, while the changes in attitudes and further behavior intentions should be the long-term goals (Kim & Sung, 2014).

### **Limitations**

One of the strengths of the current study is that it uses the same crisis (i.e., frozen pizza recall) for both crisis types (i.e., victim vs. preventable), and thereby, the crisis type was not confounded with any other effects of crisis communications such as responses or communication channel, which increase the internal validity of the experimental study. In spite of its theoretical and practical implications, this study is not free from certain limitations.

First, this study only examined medium effects, not other effects related to medium, such as medium credibility or attitudes toward the medium. Bucy (2003) suggested that media credibility mediates the effects of medium on the evaluation of news stories. Even if social media has been growing fast, organizations should not neglect the power of traditional media works in crisis communication (Utz et al., 2013). As scholars have noted, traditional media still fulfill a gatekeeping function, and therefore, information from traditional media is perceived more credible than those on social media. Future research should examine how the perceived medium credibility or media attitudes might affect crisis communication outcomes, such as attitudes and behavior intentions toward an organization.

Second, this study contributed to our understanding of medium effects during post-crisis communication by comparing the relative effects of three media channels

including blogs, Facebook and newspaper on publics' further reaction to an organization. This study treated each medium separately in the experiment. However, past research suggested that traditional media and social media serve different functions in meeting different needs of stakeholders during and after a crisis. Based on case studies of how organizations use new media in the pet food industry recall, Stephens and Malone (2012) noted that news releases, websites and news articles are more commonly used to convey technical details about a crisis, while new media, such as blogs were more associated with providing emotional support. Organizations, therefore, should understand the need for integrated communication strategy (Utz et al., 2013) when developing crisis communication plan, which call for further research. Future research should experimentally explore the interaction effects of crisis messages conveyed via traditional media and new media on crisis communication outcomes. This will provide practical guidance on how to effectively combine multiple media to provide both technical information and emotional supports in times of crises.

Third, although this study attempted to simulate real blogs, Facebook and newspapers, the contents and the medium were provided as screenshots, lacking any interactive features. The speed and dialogic functions of social media has had a significant effect on organizational communication (Kent & Taylor, 2002). Accordingly, we have to note that stakeholders have great expectations about immediate communication about crisis, including sharing information and assisting emotional supports among the victims. Adopting social media that allow real two-way communication, such as activating hyperlinks, place for comments and so forth will better examine the true nature of each medium.

## **Future Research**

Although this study likely represents the extensive analysis of the interplay role of crisis type, crisis response and medium by examining the main effects as well as the interaction effects of communication factors in post-crisis management in a food product recall crisis to date, it still only evaluates the surface regarding knowledge accumulation in this area. There should be many ways to build upon and extend current research by further examining product recall crises from various theoretical and methodological perspectives.

One of the shortcomings of crisis communication research is the understanding of social media effects. Although growing body of research has tested the relative effects of social media in comparison with traditional media, not much attention has been paid to investigate the effects of corporate blogs and Facebook comparing with the effects of traditional media, such as newspaper. Blogs and Facebook are chosen for the current study because they share similar characteristics such as allowing organizations no limitations in message length (compared to Twitter), and immediate two-way communications in an immediate and cost-efficient manner (Seltzer & Mitrook, 2007). By examining the main and interaction effects of different medium, this study contributes to filling existing research gaps.

Future research in analyzing media effects in corporate crises should consider employing a variety of media representing different ownerships. Corporate blogs, for instance, can be displayed by either official corporate blog or individually owned blogs, such as CEO's blogs. One of the merits of maintaining blogs is that publics can be more attached to organizations because they feel that they are getting directly from the

information source. In this vein, personally owned blogs, such as CEO's blogs, might be more effective in communicating crisis information than corporate blogs as they are characterized as formal, static, and one-directional, and less interactive (Cohn, 2010; Scoble & Israel, 2006). Therefore, when developing organizational blogs, this study suggests that individually owned blogs might be considered than official corporate blogs.

Second, this study suggests that further work should be directed towards understanding the inter-media effects in post-crisis communication involving recalls. Inter-media agenda setting and inter-media agenda building theories would be good theoretical frameworks that guide future research. Agenda-setting theory explains the effects of the media agenda on issue salience in the public agenda (McCombs & Shaw, 1972). Since McCombs and Shaw's (1972) study, research has attempted to understand the factors that shape the media agenda, and studies have identified inter-media agenda setting as one of the critical sources that determine the media agenda. Inter-media agenda setting refers to the influence of mass media agendas on each other (Lopez-Escobar, Esteban, Llamasa, McCombs & Lennon, 1998). As technology develops, news reporting becomes more competitive among the media which draws attention for which media becomes the first to break a news story. Combined with the evolution of new media, the competitive news-reporting environment draws scholars to examine the influence of media outlets on the news agenda. According to Ragas (2012), Inter-media agenda building refers to the "influence of media outlets on the news content of each other" (p. 94). Evidences for the role of inter-media agenda setting and building have been investigated in the context of political public relations, business

communication, and international news coverage. Researchers have reported that new media, such as blogs, are increasingly becoming a source for mainstream media reports (e.g., Denham, 2010; Lariscy, Avery, Sweetser & Howes, 2009). The important role of inter-media agenda setting and building, however, has been less recognized in crisis communication research, which leaves room for future research. Findings from future research will help crisis communication managers streamline their media choice in times of crises.

Third, findings of the current study suggest the need for identifying short-term and long-term goals in planning crisis communication. Short-term goals involve lowering public's determination of the attribution of crisis responsibility, while long-term goals involve enhancing public's evaluation of an organization, such as reputation. Therefore, future research may need to conduct a longitudinal design study to measure short-term as well as long-term relationship quality outcomes.

Fourth, findings of the current study confirmed that anger leads to higher negative attitudes, lower purchase intentions and lower positive WOM. As Coombs (1998a, 1999a) noted, public's emotions are one factor that should be taken into account when analyzing situational factors and determining organizational responsibility attributions for a crisis. However, emotion research has observed that different valence of emotions are aroused during and after a crisis. This suggests future research that specific emotions should be empirically examined rather than simply measuring generic and global feelings (Garg, Inman, & Mittal, 2005). This is important because different types of emotions do affect the decision-making process (Pfau & Wan, 2006; Wang, 2006). Those emotions that have been identified particularly salient to crises are sympathy,

anger and schadenfreude (taking joy from the pain of others) (Coombs & Holladay, 2005).

The integrated Crisis Mapping model (ICM, Jin, Pang, & Cameron, 2007) has identified four dominant negative emotions that are most likely experienced by publics in crisis situations are anger, fright, anxiety and sadness. According to ICM, publics' coping strategies (both cognitive and behavioral) can vary depending on an organization's level of engagement. High organizational engagement provides consolidated, sustained, and high priority in allocation of resources to manage the crises, while low organizational engagement devotes comparatively less resources to deal with the crises. Although exploratory, findings of the ICM studies so far have revealed that emotionally well managed publics might have positive impacts on crisis resolutions and reputation repair (Jin & Pang, 2012). This suggests the directions for future research that examines how publics' perceived organization's levels of engagement and its tailored crisis messages that meet different emotional needs affect publics' further reactions to an organization. Findings can be used in combinations of publics' perceived organization' attribution of crisis responsibility to tailor crisis responses to meet the needs of "emotionally segmented publics" (Jin & Pang, 2012, p. 681). Findings from future research that reflect stakeholders' perspectives will help refine theories and models in crisis communications (Fediuk, Coombs, & Botero, 2010).

Finally, this study employed two crisis strategies, denial and rebuilding, which indicated lowest and highest levels of organizational accommodativeness of the crisis responses respectively. Results of the pretest confirmed that the strategies were successfully manipulated. Exploring the effects of different crisis responses on

dependent variables, this study contributed to our understanding of how the different levels of an organization's intention to accommodate victims' concerns and needs under different types of crisis situations affect publics' further reactions to the organization. This study treated crisis response as a unidimensional independent variable with two extreme levels of an organization's accommodativeness. In reality, however, it should be possibilities that multiple strategies can be employed in one crisis message, which should be further investigated (Fediuk, Pace, & Botero, 2012). For instance, an organization might accept the responsibility for the crisis and apologize (mortification strategy), but at the same time claim that the crisis was unintentional (diminishment strategy). Organizational responses that include multiple crisis strategies could occur depending not only on the crisis type but also on the crisis severity. Future research should explore the interactions across different strategies in the same message to understand how stakeholders react to those responses.

APPENDIX A  
STATEMENT OF INFORMED CONSENT

**Informed Consent Statement**

**Protocol Title:** The Effects of Corporate Crisis Strategies and Medium on Consumers' Supportive Behavioral Intentions

**To the participant:**

You have been invited to participate in a study exploring the effects of different crisis response strategies and communication channels on consumers' supportive behavior intentions. **If you choose to participate in this study**, you will be asked to read a news article about frozen pizza recall crisis and to answer questions regarding your perceptions of the incident. After that, you will be asked to read crisis responses provided by Pizzeria Palermo Foods Company. Questions asking your perceptions about the company such as what causes the crisis and who is responsible for the crisis will follow.

Completion of the study is expected to take about **20-25 minutes**.

Your participation in this study is **voluntary**; you may decline to participate without penalty. You have the right to withdraw from the study at any time without consequences.

Your MTurk worker IDs (i.e., the 14 character sequence of letters and numbers used to identify workers) will be **protected**. MTurk worker IDs will not be shared with anyone outside of the research team, will be removed from the data set, and/or will not be linked to survey/study responses

**Whom to contact if you have questions about the study:**

If you have any questions or comments about this research, please contact:

Ms. Jooyun Hwang

Doctoral candidate

College of Journalism and Communications

University of Florida

jhwanguf@gmail.com

Thank you

**Agreement:**

I have read the document stating the procedures to be used and followed in this study. I AGREE to participate in this study.

PLEASE CLICK ON NEXT BELOW IF YOU AGREE WITH THE ABOVE INFORMATION.

## APPENDIX B EXPERIMENTAL STIMULI

Crisis news for victim crisis

### **Outsiders' Malicious Tampering of Pizzeria Palermo Foods Frozen Pizzas results in 3 dead**

Malicious tampering of Pizzeria Palermo Foods products may have been involved in the deaths of 3 people, the US Department of Agriculture's Food Safety and Inspection Service (FSIS) said today. Pizzeria Palermo Foods has issued a nationwide voluntary recall of 5 million frozen meat pizza that may be tainted with E. coli infections. All affected products have been removed from shelves.

Shelly Burgess, a spokesperson of the U.S. FDA said that tampering did not happen during the manufacturing process, calling for further investigation. Right now, it appears that tampering occurred when an unknown person broke in to the factory and contaminated the dough used in many of the products.

Deaths and sicknesses were reported in multiple states. The reports said that 289 people became ill after eating Pizzeria Palermo's frozen pizzas. They are all in serious condition. E-coli poisoning causes high fever, diarrhea (often bloody) and severe anemia or kidney failure, which can lead to death.

Crisis news for preventable crisis

### **Unsanitary Conditions at Pizzeria Palermo Foods result in 3 dead**

Unsanitary conditions in Pizzeria Palermo Foods may have been involved in the deaths of 3 people, the US Department of Agriculture's Food Safety and Inspection Service (FSIS) said today. Pizzeria Palermo Foods has issued a nationwide voluntary recall of 5 million frozen meat pizza that may be tainted with E. coli infections. All affected products have been removed from shelves.

Shelly Burgess, a spokesperson of the U.S. FDA said that some of the ingredients had been contaminated after being left unrefrigerated for several hours. In addition, the FDA found that utensils that touched contaminated raw meat with E. Coli were later used to handle the final product and contaminated the product before freezing. Production of Pizzeria Palermo Foods' is done by an outside agency.

Deaths and sicknesses were reported in multiple states. The reports said that 289 people became ill after eating Pizzeria Palermo's frozen pizzas. They are all in serious condition. The strain of E-coli poisoning causes high fever, diarrhea (often bloody) and severe anemia or kidney failure, which can lead to death.

## Crisis responses 1: Diminishment strategy for victim crisis type

### **An Open letter to Customers**

Dear Pizzeria Palermo Foods Customers:

Recently investigators revealed that our products had been maliciously tampered by unknown individuals. This resulted in the contamination of some of our products, for which we have issued a recall. The perpetrator(s) of the recent incident have not yet been found.

Malicious tampering issues are not uncommon in any food industry. Other food companies have been victims of attacks similar or worse than this. The current situation was beyond our control. Therefore, we believe that Pizzeria Palermo Foods is not to blame for the malicious tampering that led to the recall. We, in fact, are not responsible for the current events.

However, if you have recently purchased Pizzeria Palermo Foods' two affected frozen pizzas, please return them immediately. Please note that a full refund is **ONLY** available for the affected pizzas.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

*Jim Palermo*

Jim Palermo  
President and Chief Operating Officer  
Pizzeria Palermo Foods, U.S.A., Inc.

## Crisis responses 2: Rebuilding strategy for victim crisis type

### **An Open letter to Customers**

Dear Pizzeria Palermo Foods Customers:

Recently investigators revealed that our products had been maliciously tampered by unknown individuals. This resulted in the contamination of some of our products, for which we have issued a recall. The perpetrator(s) of the recent incident have not yet been found.

We regret the incident and apologize to consumers. We are deeply concerned for the individuals and families involved in the incident. Our main concern at this point is to protect our customers' health and safety. We will take responsibility for all medical expenses and assisting making funeral arrangement incurred as a result of this accident. To prevent the likelihood of a reoccurrence, we are currently working on improving our Food Safety Training Manuals for our staff as well as at our subcontractors.

If you have recently purchased Pizzeria Palermo Foods products, please return them immediately. **Full** compensation will be provided.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

*Jim Palermo*

Jim Palermo  
President and Chief Operating Officer  
Pizzeria Palermo Foods, U.S.A., Inc.

### Crisis responses 3: Diminishment strategy for preventable crisis type

#### **An Open letter to Customers**

Dear Pizzeria Palermo Foods Customers:

Recently investigators revealed that failures in our manufacturer's production system had resulted in unsanitary conditions. This resulted in the contamination of some of our products, for which we have issued a recall.

Our company subcontracts production to an outside agency. Our company had clearly communicated the requirements for the manufacturing of our products, but the subcontractors were not as thorough as they should have been. Therefore, the recent crisis was beyond our control. We believe that Pizzeria Palermo Foods is not to blame for the unsanitary conditions. We, in fact, are not responsible for the current events.

If you have recently purchased Pizzeria Food's two affected frozen pizzas, please return them immediately. Please note that a full refund is **ONLY** available for the affected pizzas.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

*Jim Palermo*

Jim Palermo  
President and Chief Operating Officer  
Pizzeria Palermo Foods, U.S.A., Inc.

## Crisis responses 4: Rebuilding strategy for preventable crisis type

### **An Open letter to Customers**

Dear Pizzeria Palermo Foods Customers:

Recently investigators revealed that failures in our manufacturer's production system had resulted in unsanitary conditions. This resulted in the contamination of some of our products, for which we have issued a recall.

Our company subcontracts production to an outside agency. We, however, will take full responsibility for these unfortunate events.

We regret the incident and apologize to consumers. We are deeply concerned for the individuals and families involved in the incident. Our main concern at this point is to protect our customers' health and safety. We will take responsibility for all medical expenses and assisting making funeral arrangement incurred as a result of this accident. To prevent the likelihood of a reoccurrence, we are currently working on improving our Food Safety Training Manuals for our staff as well as at our subcontractors.

If you have recently purchased any of Pizzeria Palermo Foods, please return them immediately. **Full compensation** will be provided.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

*Jim Palermo*

Jim Palermo  
President and Chief Operating Officer  
Pizzeria Palermo Foods, U.S.A., Inc.

## Crisis responses on corporate blog



### An Open Letter to *Pizzeria Palermo Foods* Customers

Dear *Pizzeria Palermo Foods* Customers:

Recently investigators revealed that failures in our manufacturer's production system had resulted in unsanitary conditions. This resulted in the contamination of some of our products, for which we have issued a recall.

Our company subcontracts production to an outside agency. Our company had clearly communicated the requirements for the manufacturing of our products, but the subcontractors were not as thorough as they should have been. Therefore, the recent crisis was beyond our control. We believe that *Pizzeria Palermo Foods* is not to blame for the unsanitary conditions. We, in fact, are not responsible for the current events.

If you have recently purchased Pizzeria Food's two affected frozen pizzas, please return them immediately. Please note that a full refund is **ONLY** available for the affected pizzas.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

*Jim Palermo*

Jim Palermo  
President and Chief Operating Officer  
*Pizzeria Palermo Foods*, U.S.A., Inc.

## Crisis responses on corporate Facebook



### An Open Letter to *Pizzeria Palermo Foods* Customers

Dear *Pizzeria Palermo Foods* Customers:

Recently investigators revealed that failures in our manufacturer's production system had resulted in unsanitary conditions. This resulted in the contamination of some of our products, for which we have issued a recall.

Our company subcontracts production to an outside agency. Our company had clearly communicated the requirements for the manufacturing of our products, but the subcontractors were not as thorough as they should have been. Therefore, the recent crisis was beyond our control. We believe that *Pizzeria Palermo Foods* is not to blame for the unsanitary conditions. We, in fact, are not responsible for the current events.

If you have recently purchased Pizzeria Food's two affected frozen pizzas, please return them immediately. Please note that a full refund is **ONLY** available for the affected pizzas.

For additional information, including ongoing updates on the official investigation, please visit us on the web at [PizzeriaPalermoFoods.com/recall](http://PizzeriaPalermoFoods.com/recall) or contact us 1-888-921-0623.

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## An Open Letter to *Pizzeria Palermo Foods* Customers

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