
Sufyan Mohammed-Baksh¹,*, Howard Fisher¹ and Iordanis Petsas²

¹Department of Communication & Media, University of Scranton, Scranton PA 18510, USA
²Department of Economics and Finance, University of Scranton, Scranton PA 18510, USA

Abstract: Food safety related crises are a reality of our times. Based on the significant importance of risk communication in avoiding, minimizing and managing food-safety related crises, this concept paper will help generate knowledge about the efficacy of various crisis response strategies, specifically for food-safety related crises situations. Future researchers can utilize the framework proposed in this paper to generate findings that can help scholars as well as practitioners in communication and food/restaurant related industries.

Keywords: Food Safety, Crisis Communication, Conceptual Paper, International Public Relations, Crisis Response Strategy.

WHAT IS A CONCEPTUAL PAPER?

In the editorial titled ‘So what is a Conceptual Paper?’*, the editors noted that conceptual papers go "beyond summarizing recent research and provide an integration of literatures, offer an integrated framework, provide value added, and highlight directions for future inquiry. Conceptual papers, as such are not expected to offer empirical data” [1] (p. 127). Furthermore, “conceptual papers do not contain data because the focus is on the integration and proposing new relationship among constructs. Thus, onus is on developing logical and complete arguments for association rather than testing them empirically” [1] (p. 127). The following conceptual paper summarizes food safety risk communication research and proposes a relationship with the construct of crisis communication strategies research to provide academics and practitioners new directions for further research and practice in the age of globalization and information democratization.

REVIEW OF LITERATURE

Food Safety

Food safety has become an important global issue with far-reaching international trade and public health implications [2]. The public is more concerned than ever about the risks from food hazards [3]. Many times, restaurants, etc. get caught-up in food safety issues which in-turn has long-term effects on their profitability and even sustenance. Most of the common restaurant brands are part of huge franchise conglomerates like McDonalds, Sub-Way, KFC, etc. and most Americans consume food form these chains several times a month [4, 5]. Many times, problems related to food safety occur in these establishments (or at any one link in their supply chain) and this causes corporate crisis of enormous proportions. Although many crisis communication books and gurus propose various strategies to deal with crises, they may work differently in the restaurant industry because of the intimate involvement consumers have with food, which makes the issues more delicate and volatile for the restaurants.

Proactive measures seem to be the most prescribed methodology in food safety. As most food either is imported or travels great distances before it reaches consumers, food safety measures are difficult to implement and monitor at the point of origins of food [6]. In the case of the food chain, actions taken need to be swift and efficient. The situation is even more urgent and requires extra efforts when human health is at risk [7].

Risk Communication

Risk is one of the most inevitable and unavoidable part of most organizations [8]. An organization’s social legitimacy or social responsibility is affected by how consumers and stakeholders see the organization managing risks in their best interest [9]. The American public does not trust huge corporations. In fact, a recent Roper survey found that fewer than three in ten Americans trust huge corporations. A Gallop poll found that business leaders have joined stockbrokers and
used car dealers in the category of “least trusted” individuals in American society [5]. The restaurant industry for instance, trials only Pharmaceuticals, Oil, and a few others as one of the most distrusted industries in the U.S. [9].

Risk communication becomes even more important in the food and restaurant industries [10]. Consumers tend to be more affected when crises arise in the food sector due to the intimate relationship with food. In other words, in times of crisis, restaurant chains have the potential of being negatively affected more than other corporations, because of the added disadvantage they suffer from at the outset. Hence, this study aims to evaluate which corporate crisis communication strategy would work best in dealing with food safety related crisis in the restaurant industry. The results from conducting studies based on this conceptual paper can also be applied to crisis situations arising in other industries, beyond food and restaurants [11, 12].

According to Schramm [13], in a persuasive situation, “the receiver enters with his guard up” (p. 35); this means that the persuader enters the relationship with a handicap that is not experienced in normal, everyday communications. In other words, in corporate communications, the corporation has a handicap at the outset and in a corporate crisis situation, the situation gets worse and a corporation is held guilty until proven innocent [5]. Some studies have also shown that more the crisis situation is close to a person, the stronger the reaction towards the company [5]. In a study conducted by Miles and Frewer [14], the authors aimed to identify the concerns held by public with regard to five specific food hazards (BSE, genetic modification, high-fat diets, pesticide-residuals in food, and Salmonella food-poisoning). The study found that there were no differences between the five food hazards. In other words, the consumers share a more-or-less equal concern about all potential food-safety related hazards, which means that results using any one hazard can be generalized to the remaining four possible food-safety hazards.

A study by [10] found a significant gap between risk communication campaigns conducted by organizations that cause the risk and what the public understands the risk to be. This causes risk-producing organizations blaming the public for not understanding the risks and thereby being more seriously affected by them. The authors propose a collaborative effort of risk assessment and risk communication by several stakeholders to mitigate the negative impact of food-safety related risks [10]. However, it can easily be concluded that the main issue is the differences in shared meaning of risk communication campaigns between the senders and receivers of such campaigns. Thus, a sound risk communication campaign would be the obvious first step in managing any future crises.

Although the FDA has some authority to issue recalls, it generally is the action of last resort [15]. In order for risks not to turn into full-blown crises, it is important to start risk communicating as early as possible [5, 16]. van Asselt et al. [16] evaluated food safety response plans in Germany and Netherlands and found that the success of a food safety campaign depended on the way the public was alerted initially followed by assessment of the problem, quick planning and execution of solutions. They also found that it was critical for companies to evaluate their crisis management periodically.

Another study conducted by Griffith, Mathias, and Price [17] found that food safety is considered of paramount importance to consumers. The study aimed to assess the role played by media in educating the public about food safety and related issues, different components of the mass media were analyzed to assess the kind of information each provided on issues related to food safety. The study found that among media outlets, magazines would be the number one source of food safety related information that consumers would seek out. The study analyzed many media forms like magazines, television, leaflets, etc. but Internet was not included in the study probably because the Internet had not gained importance in 1994 [17]. However, it is safe to assume that if this study were to be replicated today, the results would skew most in favor of the Internet.

As globalization becomes an increasing reality of the food business, most of what we consumer comes from all over the world (e.g. palm oil from Indonesia or tea from India). Different countries have different standards and policies concerning food safety. It is hence very important to understand regulatory structures of food safety of different countries and create a convergent of different regulatory frameworks to ensure global food safety [18]. Effectively communicating food safety risks on an international scale is hence necessary to ensure food safety globally.

Falenski et al. [7] conducted an experiment to evaluate whether ready-to-use software-based models
of food safety crises could help communicate risk quickly and efficiently to the public. The authors found that read-to-use models worked best in extreme cases of food safety compromise, like bioterrorism-type food contamination. However, they acknowledged the importance of building a knowledge base of food-safety crisis response strategies to minimize, or even prevent future food safety related crises, or to manage crises should they occur.

Based on the significant importance of risk communication in avoiding, minimizing and managing food-safety related crises, this proposal will help generate knowledge about the efficacy of various crisis response strategies, specifically for food-safety related crises situations. Future researchers can utilize the framework proposed in this paper to generate findings that can help scholars as well as practitioners in communication and food/restaurant related industries.

Crisis Communication & Coombs’ Crisis Communication Strategies

According to Coombs [19], in Wilcox, Cameron, and Reber’ [5] Public Relations Strategies & Tactics, companies use various strategies to respond to corporate crisis – some are negative (like attacking the accuser or denying involvement) and some are positive. This study will focus on both types of strategies. The seven most popular communication strategies that corporations generally use to respond to corporate crisis are as follows:

• **Attack the Accuser:** “The party that claims a crisis exists is confronted and its logic and facts are faulted. Sometimes a lawsuit is threatened” [5, p 182].

• **Denial:** “The organization explains that there is no crisis” [5, p 182].

• **Excuse:** “The organization minimizes its responsibility for the crisis. Any intention to do harm is denied, and the organization claims that it had no control over the events that led to the crisis” [5, p 182].

• **Justification:** “Crisis is minimized with a statement that no serious damage or injuries resulted. Sometimes the blame is shifted to the victims” [5, p 182].

• **Ingratiation:** “Actions are taken to appease the publics involved. For example, the organization publicly makes donations to charitable organizations” [5, p 182].

• **Corrective Action:** “Steps are taken to repair the damage from the crisis and to prevent it from happening again” [5, p 182].

• **Full Apology:** “Organization takes responsibility and asks for forgiveness. Some compensation of money is also given to the victims and affected publics” [5, p 182].

According to Coombs and Holladay [20], different crisis response strategies have different outcomes in terms of their effects on company reputation, customer sentiment, perceptions of credibility, intent to purchase, etc. The outcome variables for this study are the consumer’s perception of the organization’s credibility and the consumer’s intent to buy from the organization. For the purpose of this study, the outcome variables will be defined as follows:

• **Credibility:** “Credibility is the ‘reasonable grounds for being believed.’ One who is credible is trustworthy. We have confidence in a person’s (or organization’s) character and competence” [21]. Effectiveness of crisis response has been proven to be directly proportional to perceptions of organization credibility [11, 12]. Credibility, for this study will also be a direct result of effectiveness of crisis response strategies. In other words, the more effective the crisis response strategy, the higher the perception of organization credibility.

• **Intent to Buy:** Whether a consumer self-admit the willingness to buy a particular product.

Research Problem & Objective

Previous research in food safety has focused mainly on causes, effects, and implications of food safety and related issues from an awareness, trade, and international perspective. However, very few studies have addressed ways and means of dealing with corporate crisis that arise because of poorly managed food safety in the context of using different crisis response strategies. This study focuses on the various strategies that corporations can implement which could help them resolve food safety related corporate crises. This study evaluates various positive and negative strategies used in times of corporate crisis to assess which one(s) work best in case of the food and restaurant industries in times of crisis.
This proposal’s objective is to assess which corporate communications response strategy works best in times of crisis related to food safety issues in the restaurant industry. The intended outcome variable for the study are the credibility of the organization and the consumer’s intent to buy from the organization.

**Hypotheses & Research Questions**

The study will be a completely randomized experiment with four treatment conditions and one control condition. The eight treatment conditions will consist of the seven above mentioned different crisis response strategies and one control condition without any response strategy. The Hypotheses proposed in this study were based on earlier research on crisis communication but were modified for application to food safety related crisis [11, 12]. The following hypotheses are proposed for this study:

H1: There will be differences across conditions in terms of consumers’ perceptions of organization credibility based on crisis response strategies during food safety crisis situations.

H2: There will be differences across conditions in terms of consumers’ intent to buy from the organization based on crisis response strategies during food safety crisis situations.

H3: Control condition will rate the lowest in terms of consumer’s perceptions of organization credibility and intent to buy from the organization during food safety crisis situations.

H4: Positive crisis response strategies like Ingratiation, Corrective Action, and Full Apology will rate higher in terms of credibility perceptions and intent to purchase than negative strategies like Attack the Accuser, Denial, Excuse and Justification during food safety crisis situations.

The following research questions will also guide the research:

RQ1: Which corporate communications crisis management strategy will rate the highest in terms of consumer’s perception of organization credibility during food safety crisis situations?

RQ2: Which corporate communications crisis management strategy will rate the highest in terms of consumer’s intent to buy from the organization during food safety crisis situations?

**Research Design**

The following is a graphical representation of the relationship between the independent and dependent variables in this study (Please contact study authors for sample variables):

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis News + Attack the Accuser</td>
<td>Crisis News + Denial</td>
<td>Crisis News + Excuse</td>
<td>Crisis News + Justification</td>
<td>Crisis News + Ingratation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Group 6</th>
<th>Group 7</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis News + Corrective Action</td>
<td>Crisis News + Full Apology with</td>
<td>Crisis News + No Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>compensation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Outcome Variable: Intent to Purchase products + perceptions of Organization Credibility**

The independent variable in this study is the seven levels of crisis response strategies and one control condition employed by a restaurant in times of crisis caused by poor food safety. The two dependent variables in the study are consumers’ credibility perceptions of the restaurant and their intent to buy from the restaurant. In essence, this study is a completely randomized experimental design (CR – 8). There will be eight versions of the Internet homepages created in this fully crossed design for each of two large restaurant chains; Burger King and Sub-Way Restaurants. Existing restaurants brands will be used to create realism of the study. A pre-test will be administered to control for any biases based on history with the brands.

Participants will be randomly selected from a population representing typical fast-food patrons and each participant will be randomly assigned to one of seven possible experimental conditions or one control condition. Each participant will be shown a total of two dummy websites and one version of the two treatment condition Website homepages, totaling four Website homepages. The participants will evaluate the organization in relation to each homepage and the evaluations will primarily be on perceptions of credibility and the intent to purchase from the organization. As treatment conditions involve the use of existing corporations, a pre-test will be performed to control for possible individual participant perceptions and biases.
A Conceptual Framework of Response Strategies Research

Population & Research Participant

The population of interest in this study consists of people who eat in fast food restaurants and who consume news from any source, preferably the Internet. As the experiment conditions employ the use of internet homepages of the restaurant’s website, and as corporations have complete control over the content on their homepages, the results of this study are limited to organization websites and space brought on different media where the organization has complete control on content and where study conditions can be replicated. The results of the study may also be generalized to news stories in various media that are about food safety crisis and the response strategies employed by the company.

This study can recruit subjects from the general population or college students. College student would be considered appropriate for this study because research has found that newspaper readership is positively correlated to the amount of education achieved, and that 68% of people with college degrees read newspapers [22-24]. Also, college students are active consumers of the Internet and are more likely to seek out information on corporate websites and hence the researchers believe that college students are a fair representation of present news consumers and future newspaper readers.

The study requires a minimum of 240 completed questionnaires (30 in eight conditions). A study of this nature, to yield a power of .80, requires a total sample size of 240 with 30 participants in each experimental condition. Participants will be randomly assigned to one of the eight conditions. The researchers should attempt to complete 20 extra questionnaires to protect against bad data and in-case there are some incomplete questionnaires and to minimize non-response errors.

Measurement of Variables / Stimulus Materials

Crisis response strategy will be manipulated by creating eight sets of organization Internet homepages for the two organizations. All versions of both the company Internet homepages will list crisis news of people being hospitalized after consuming the food of the restaurant, which was possibly infected by the E-coli bacteria. However, seven versions will have a 100-word paragraph explaining the company’s response using each of the seven possible crisis response strategies. The control condition will only have the crisis news on the company homepage without any response from the company. The company Internet homepages can be created using appropriate software or web building websites like Weebly.com. All care should be taken to make the homepages look exactly like the original company Websites. To ensure no bias resulting from order of appearance of the treatments, each of the treatment condition websites can be rotated in the following manner:

- Treatment Condition 1 (Justification)
- Pretest- Dummy 1 – Burger King Condition 1 – Dummy 2 – Subway Condition 1 (n = 15)
- Pretest - Dummy 1 – Subway Condition 1 – Dummy 2 – Burger King Condition 1 (n = 15)

Figure 1: The randomized pretest-posttest control group design (Frankel & Wallen, 2006).
A pilot test of the study can be conducted to check internal consistency, reliability of the measures, and validity of the instruments and the study.

**Conditions of Testing & Data Collection Procedure**

Participants will be randomly assigned to treatment conditions or the control condition. They will be informed that the websites and news is real and that they are seeing screenshots from the actual company websites. After reading each article, participants will answer a set of dummy measures included to disguise the purpose of the study. Once the dummy questionnaires have been answered, participants will complete three additional pages of measures (including demographic information) designed to gauge perceptions of credibility of the organization, and to gauge intent to purchase from that organization.

**Pretest:** Participants will be asked to rate the two organizations, Burger King and Sub Way on outcome scale items including perceptions of organization credibility and intent to purchase form the organization. The results of the pretest will be used to control for any pre-experiment biases toward brands used in this study.

**Credibility rating for the Organization:** Participants will be asked to rate the organization on an 11-point semantic differential scale based on previous research [24-26] to reveal each participant’s perceptions about the organization in terms of credibility. As this scale has been used for similar research, no modifications, except brand names, will be necessary.

**Intent to buy from the Organization:** A second 11-point, semantic differential scale will be used to gauge participants’ intention to purchase products and stocks of the organization. Responses to the stock purchase questions will be used to supplement information. As this scale has been used for similar research, no modifications, except brand names, will be necessary.

A version of both the scales [12] can be requested from the authors of the study.

**Data Analysis**

After data collection, responses to each individual measure should be collapsed using factor analysis, across single items to obtain an overall measure for each of the questions. After generating descriptive statistics, data should be submitted for univariate analysis of variance (one-way ANOVA) to find differences in credibility perceptions and intent to buy across all the eight groups. After finding significant differences across groups, various pair-wise post-hoc tests like Tukey-HSD and Scheffe-tests will also be performed to find which groups differ most significantly from one another.

**Intervening Variables**

The following intervening variables may affect the dependent variables in this study and should be controlled for mainly by pretesting and random assignment:

- Participant’s personal experience with food safety
- Participant’s attitude towards food safety
- Participant’s attitude towards large corporations/individual organization(s) in the experiment
- Participant’s experience with, and attitudes towards, the Internet and corporate Websites.

**DISCUSSION & FUTURE RESEARCH**

As the restaurant and food industries have become one of the largest and most important global industries in modern era, the incidents of food safety related crises have grown exponentially. With significantly more and immediate access to information, and more attentive media, customers become aware of crises in the food and restaurant industries almost the instant they happen. As the first rule of crisis communication, it is important for organization(s) involved in the crisis to take control of communication or risk losing control on the narrative. Most previous research in food safety crises recommends risk communication as the first step to managing a crisis. Customers must be informed of the risks they face and solutions if any. This conceptual paper posits that in addition to controlling the narrative during a crisis, it is also important to have some level of control on the outcome of that narrative.

A version of this research can also be conducted on social media. As social media has become part of our social and business lives, many organizations are leveraging the power and reach of social media to conduct crisis communications. We believe, the experiment proposed can be conducted using organizations’ Facebook or Twitter accounts with a much larger audience. This too has significant implications for researchers as well as practitioners.
We propose testing each of Coomb’s [19] seven crisis response strategies in addition to risk communication when responding to food safety crisis news. This paper provides future researchers with a detailed framework to explore this important topic further. Several hypotheses and research questions are proposed as well.

REFERENCES


