

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Theses from the College of Journalism and Mass
Communications

Journalism and Mass Communications, College of

Summer 8-1-2014

THE IMPACT OF FOOD MANUFACTURERS' RECALL NOTIFICATIONS ON THE TONE OF NEWSPAPER COVERAGE

Monique L. Farmer

University of Nebraska-Lincoln

Follow this and additional works at: <http://digitalcommons.unl.edu/journalismdiss>



Part of the [Journalism Studies Commons](#), [Mass Communication Commons](#), [Other Communication Commons](#), and the [Public Relations and Advertising Commons](#)

Farmer, Monique L., "THE IMPACT OF FOOD MANUFACTURERS' RECALL NOTIFICATIONS ON THE TONE OF NEWSPAPER COVERAGE" (2014). *Theses from the College of Journalism and Mass Communications*. 42.
<http://digitalcommons.unl.edu/journalismdiss/42>

This Article is brought to you for free and open access by the Journalism and Mass Communications, College of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Theses from the College of Journalism and Mass Communications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

THE IMPACT OF FOOD MANUFACTURERS' RECALL NOTIFICATIONS
ON THE TONE OF NEWSPAPER COVERAGE

by

Monique L. Farmer

A THESIS

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Master of Arts

Major: Journalism and Mass Communications

Under the Supervision of Professor Ming Wang

Lincoln, Nebraska

August 2014

THE IMPACT OF FOOD MANUFACTURERS' RECALL NOTIFICATIONS
ON THE TONE OF NEWSPAPER COVERAGE

Monique L. Farmer, M.A.

University of Nebraska, 2014

Advisor: Ming Wang

This study examined whether attributes focused on within food recall notifications issued by food companies have an impact on the tone of the associated, subsequent news coverage. Additionally, the study examined second-level agenda building to determine whether attributes emphasized in food recall notifications showed up in resulting news coverage.

The findings suggest that the most significant attribute for crisis communicators to focus on during the agenda-building process of a food recall event is instructional messaging. This aspect of the crisis communication messaging strategy is positively correlated with a positive tone in news coverage. Specifically, this research study found some tentative evidence that the tone of newspaper coverage is almost four times as likely to be positive with each additional element of instructional messaging within the food recall notifications. The study also found support for second-level agenda building, the transfer of attribute salience in food recall notifications to news coverage.

TABLE OF CONTENTS

Chapter 1: Introduction.....	5
Chapter 2: The Evolution of Agenda Setting and Agenda Building Theories.....	9
Agenda Setting – Early Beginnings.....	9
Four Key Historical Phases of Agenda Setting.....	9
The Birth of Agenda Building.....	14
Chapter 3: Best Practices in Crisis Communication Strategies and Messaging.....	19
The Function of Food Recall Notifications.....	19
Food Safety Recalls and Crisis Management.....	21
Best Practice in Food Recall Crises: Transparency.....	22
Best Practice in Food Recall Crises: Acceptance of Responsibility.....	24
Best Practice in Food Recall Crises: Instructional Messaging.....	26
Best Practice in Food Recall Crises: Apology.....	29
Chapter 4: Method.....	31
Intercoder Reliability.....	33
Sentiment Analysis/Tone Assessment.....	35
Chapter 5: Research Findings.....	36
Transparency Attribute.....	36
Acceptance of Responsibility Attribute.....	37
Instructional Messaging Attribute.....	36
Apology Attribute.....	38
Chapter 6: Study Limitations.....	40
Chapter 7: Discussion.....	43
Chapter 8: Recommendations for Future Research.....	46
Chapter 9: Conclusion.....	48

Figures, Tables & Appendices

Figure 2.1	11
Figure 2.2	13
Table 5.1	38
Appendix A	54
Appendix B	57
Appendix C	59
Appendix D	62
Appendix E	64
Appendix F	66

Chapter 1

Introduction

Once a food product has been produced by a food company and widely distributed to the public, food quality or safety issues can sometimes arise that may call for the product to be recalled (U.S. Food and Drug Administration, 2010). During the point at which a recall is deemed necessary, communication managers for food manufacturing firms must begin to anticipate public scrutiny, as well as the reality that they could potentially be entering crisis communication territory. Because of the high alert level crises have the potential to draw, the very act of navigating the cycle associated with the crisis management and crisis communication process puts organizations into the position of working diligently to remain ahead of the crisis in a world where the news cycle spans a 24-hour/7-day-a-week time frame (Young & Flowers, 2012).

Decisions regarding what to communicate versus what not to communicate to the public in times of crisis can come with significant consequences if not decided carefully. It has been noted that instructional messaging delivered during a crisis can be integral because it can save lives (Frisby, Sellnow, Sellnow, Lane, & Veil, 2011). Crisis communicators are often faced with critical decisions early on about the proper manner in which to frame instructional messages that provide the public with the proper amount of information to take appropriate actions. Communication practitioners also have an obligation to reputation management, which requires messaging in a way that places the company in the most favorable position to withstand the blow a crisis can sometimes serve. Therefore, the use of best practices in communication strategies and message

development and delivery can mean the difference between coming in beneath the radar or repairing severe reputation damage (Frisby et al., 2011).

Crisis communicators stand to benefit from information regarding how organizations can stay ahead of the crisis management curve through a firm grasp of how agenda building—the theory that states communicators play a role in helping build the media agenda—is likely to impact coverage of an event (Fahmy, Wanta, Johnson & Zhang, 2011). A solid understanding of the agenda-building cycle can provide insight into selecting appropriate messages during the early stages of an immediate crisis, as well as a sustained crisis. This information can help organizations stand the best chance of receiving coverage that paints the event using the most appropriate tone, while simultaneously maintaining the company's reputation and allowing the public to assess the appropriate level of urgency and deducing a clear understanding of any actions that may need to be taken to ensure inoculation from potential harm or inconvenience.

The media play an important role during crisis communications, often serving as a communication conduit between companies and consumers. The channel is integral in the realm of information dissemination, particularly around communication directed at consumers (Larsson, 2010).

Simply put, media coverage, therefore, converges with FDA food recalls in shaping consumer attitudes about companies as well as consumer reactions to recalls. An example of this can be seen in the 2006 recall of Dole brand baby spinach. The *Huffington Post* listed it among the worst food recalls of all time. The recall was ordered when it was discovered that the bagged fresh, ready-to-eat vegetable was linked to *E. coli*

O157:H7 illnesses and a death. The media heavily reported on the recall, demonizing the event and instructing consumers to avoid purchasing it during the shelf removal process. Media coverage of the event also included instructional messaging that directed consumers not to consume any product they may have already purchased (Falkenstein, 2010). Ultimately, the coverage led to consumers eschewing the product.

Despite the voluminous amount of literature on agenda building and agenda setting, few studies have examined the relevance of agenda building theory in the context of food recalls. This thesis aims to fill this gap in the literature by analyzing food product recall notifications and resulting media coverage through the theoretical framework of agenda building. The research also aims to inform the scholarly body of knowledge related to agenda building by analyzing the relationship between messaging used by crisis communicators during a food recall event to discern which messaging may be most important to relay to consumers during a food recall event, while simultaneously maintaining the company's reputation. Additionally, this research aims to arm communicators with information regarding which attributes and sentiment/tone they might expect to have turn up within the corresponding newspaper coverage following a food recall notification announcement. This information can help communicators make strategic decisions to turn the sentiment dial toward a more positive tone during various crisis communication efforts.

This study will trace the theoretical cycle associated with the framework of agenda building, especially second-level agenda building. The cycle focuses on who sets the media agenda as well as the resulting media coverage and which attributes the media

provides salience to following the first level of the agenda building process (Kiouisis, Lanskin & Kim, 2011).

At the theoretical level, this research is designed to take a look at agenda building using the food recall notification process and the manner in which food manufacturers' public relations practitioners use agenda building theory to help build the media agenda. Results from this study also aim to help crisis communicators develop more effective food recall notification messaging and be more proactively prepared to anticipate which attributes are likely to appear in newspaper coverage as well as the potential tone to expect out of coverage during food recall events.

Chapter 2

The Evolution of Agenda Setting and Agenda Building Theories

Agenda Setting – Early Beginnings

Agenda setting is the process that takes place directly following the agenda building process (Walters, Walters & Gray, 1996). Though he never referred to the practice specifically as agenda setting, early 20th century journalist and political theorist Walter Lippman is often credited with identifying the practice in his widely-cited book, *Public Opinion* (1922), where he discussed the manner in which the public thinks about the world and how their thoughts and ideas are impacted and changed as their mental knowledge base is updated through the receipt of new, relevant information via a messenger. In contemporary society, that mediator is the mass media. Today, “Lippmann is defined as a political scientist who supported the extensive use of mass media to manipulate public opinion in order to manage perceptions” (Garcia, 2010, p. 3). His ideals about strategic communication within the realm of public relations live through the practice of corporate reputation management and media relations.

Four Key Historical Phases of Agenda Setting

Agenda setting theory has experienced a steady growth in its literature since the theory was first introduced by McCombs & Shaw (1993) with their seminal study of the 1968 presidential election. Their work questioned how voters who had been exposed to specific issues related to the election via news coverage viewed those issues after being exposed to the coverage. Since the 1972 article was released, hundreds of studies and articles related to the theory have been produced and published. The original theoretical

domain of agenda setting introduced the idea of a crossing path between the media and the public agenda.

There are four distinct historical phases of agenda setting, and the phases have built on each other over time rather than superseding one another. McCombs & Shaw (1993) outlined the evolution of the theory as follows:

- **1972** – This year served as the opening phase of agenda setting presented by McCombs & Shaw, which was gleaned from Walter Lippman and the idea of the “pictures in our heads.” Findings from their 1968 study indicated there was a positive correlation between the media’s agenda and the public agenda.
- **1977** - After McCombs & Shaw published their original study, they immediately began working to confirm that their findings were valid. They initiated a second study that had two primary goals: (1) to confirm the basic agenda setting hypothesis and (2) to investigate contingent conditions that limit or enhance the theory as well as to identify and explain the orientation of agenda setting. Specifically, the researchers were looking to determine what conditions are typically present that cause agenda setting to unfold in the manner it does to produce the transfer of salient issues from the media to the public.
- **1976** – Agenda setting entered its third phase during the 1976 Presidential election. Weaver, Graber, McCombs, & Eyal’s (1981) study explored the idea that agendas spanned two domains: first level agenda setting whereas the characteristics of political candidates by the media were later learned by voters and second-level agenda setting whereas the larger agenda of personal concerns—issues and candidates—are just a small piece of the larger agenda setting orientation picture.
- **1992** – Researchers began to take a deeper look into how, if at all, agenda setting had consequences that linked the behavior of the public to images, ideas and actions absorbed through the media in the early 1990s. Evidence in Page & Shapiro’s (1992) study of television news coverage over a 15-year period indicated a shift in public opinion following exposure to certain salient issues and images presented by the media.

Agenda setting helps explain how the media decide what news will be covered (McCombs & Shaw, 1993). The process flow includes an aspect of affirmation for the

public's belief that the media is an impartial player that provides an objective view of what is happening in the world (Walters et al., 1996). The classic view of agenda setting theory suggests that the media's concern with topics corresponds with public concern for those same topics (Kiousis, Bantimaroudis & Ban, 1999). The theory is concerned with salience and those topics the media determines are important enough to be placed on their agenda for coverage (McCombs & Shaw, 1993).

Figure 2.1 provides a conceptual view of the agenda building and agenda setting processes, depicting the relationships between the two. The figure also highlights the focus on attribute salience at the second level.

Agenda Building & Agenda Setting Conceptual Frameworks

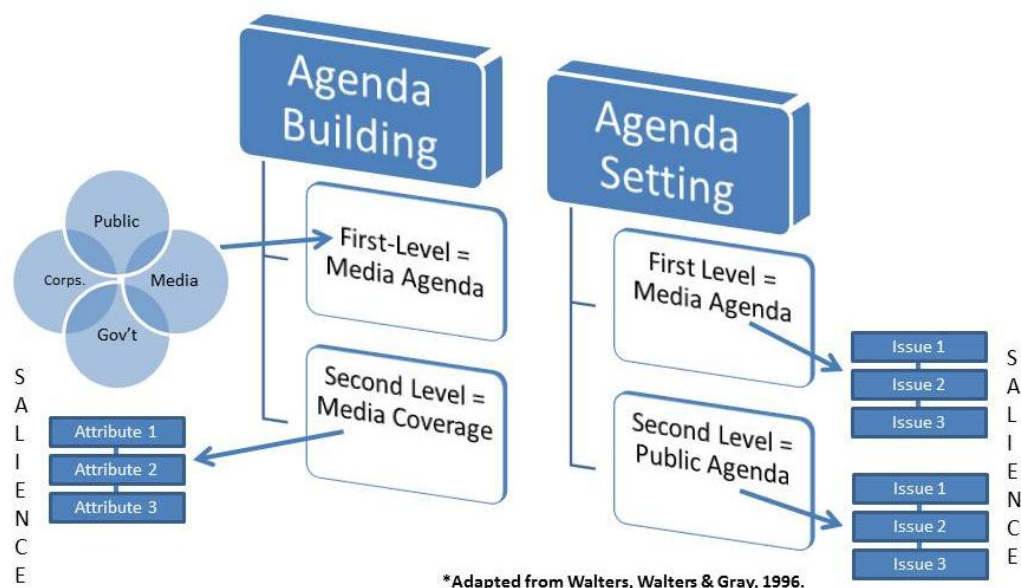


Figure 2.1 Agenda Building and Agenda Setting Conceptual Frameworks

Once the media gets wind of a food product recall following the dissemination of a news release or through some other means, agenda setting is likely to begin.

Another important aspect of the agenda setting theory is the first-level and second-level distinction (Walter et al, 1996). This is an important aspect of the theory because it delves into a layer below the surface of salience and focuses on the role the media plays in steering its audience toward a determination that attributes related to a topic are important enough to pay attention to. Repetition and dominance are often the strategies employed to help ensure the messages stick.

Figure 2.2 illustrates second-level agenda setting, the transfer of attributes from the media to the public. Attribute agenda setting involves identifying both the primary characteristics audiences should be concerned with as well as the level of concern those audiences should have regarding those topics based on the tone attributed (Hector & Gibson, 2003). Some researchers claim that attribute agenda setting is inextricably linked to framing because, like framing, the theory encompasses the idea that news content is organized using methods that allow for emphasis on aspects of a topic, while simultaneously excluding other information to present a desired level of salience (Kiousis, Bantimaroudis & Ban, 1999).

Attribute Agenda Setting (born out of agenda setting)



*Adapted from Walters, Walters & Gray, 1996.

Figure 2.2 Attribute Agenda Setting

Tone is often used as another element of attribute agenda setting. Particularly, from a public relations media analysis perspective, tone is often analyzed routinely by practitioners to discern how well an organization is faring in the news media, and in the minds of the public. Specifically, practitioners evaluate whether news coverage carries a positive, neutral or negative tone (Sheafer, 2007). As stated previously, public relations practitioners are often concerned both with whether the organization's messaging is successfully penetrating the news coverage as well as the tone that is being expressed (Hester & Gibson, 2003).

The study of attribute agenda setting is an area that has undergone little empirical analysis (Sheafer, 2007). More recently, sentiment analysis or the practice of evaluating sentiment in news coverage by gauging tone has been a focus of research over the past ten years (Tsou, Kwong, Wong & Lai, 2005). Similar in nature to researchers' focus on the tone of media coverage, which can be considered a byproduct of the attribute agenda

setting process, sentiment analysis offers insight into the way a topic is covered. Thus, researchers and practitioners alike are beginning to pay more attention to the impact that can occur as a result of the way the media covers certain topics (Tsou et al., 2005).

From a research perspective, sentiment analysis is of particular interest because news reports often have a tendency to be colored by views that are less than objective (Tsou et al., 2005). As a result, the coverage of specific political issues, media personalities, celebrities, companies, government organizations or events run the potential to be impacted by the manner in which news reporters, editors and newspapers report on those topics. Subsequently, the sentiment attributed toward the coverage of some topics by readers, listeners and viewers is often simplified using three distinct and polar categories: positive, neutral or negative (Tsou et al., 2005).

Tone has its place amongst the idea of second-order agenda setting, first introduced by McCombs & Shaw (1993), which suggests that the media sets the public's agenda at an attribute level, telling viewers, listeners and readers how to think about a topic versus just what to consider important, which would be considered the first order (or level) of agenda setting. The theory suggests there are two distinctly separate levels of agenda setting: the object level and the attribute level, which involves tone. Traditionally, the object level fulfills the role of assisting the audience with assigning a level of importance to the topics being covered. The attribute level is the level at which the media begins to impact the audience's thoughts about how to think about what has been presented (McCombs & Shaw, 1993).

The Birth of Agenda Building

Agenda building is an aspect of agenda setting research that has theoretical roots reaching back to Cobb and Elder (1971) who coined the theory during their quest to determine why some issues received attention with decision makers while others went practically unnoticed.

The theory really developed following Weaver et al's contribution to the literature (McCombs & Shaw, 1993), which suggested the agenda setting process was secondary to a preliminary process. That process is known as agenda building.

The process contrasts with traditional agenda setting theory because it shifts the spotlight away from what's on the media and public agenda to how certain issues and attributes become salient on the media and public agendas in the first place (McCombs & Shaw, 1993). In other words, where did the ideas originate? Or, who sets the media agenda? Agenda building entails a process of salience formation that includes a number of primary players from government officials, politicians, activist groups and corporations to non-profit entities, academic organizations and religious bodies. The interplay among these groups shapes the object level, or issue salience level from one agenda to another.

Studies delving deeper into this interplay submit that public relations practitioners rely on information subsidies such as news releases, press conferences, advertisements, interviews and other supplemental information to aid in the transfer of issue salience (Kiousis, Laskin & Kim, 2011; Zoch & Molleda, 2006). If we consider information as a commodity, the media gains access to the information through any number of means

often referred to as information subsidies. These means could include news releases, interviews with spokespersons, special events, press conferences, or media advisories (Kiousis et al., 2006). News releases are often a relied upon source in studies that aim to demonstrate the agenda-building transfer of issue salience and the attribute level of the agenda building process (Kiousis, Laskin & Kim, 2011).

Theoretically speaking, the agenda building cycle unfolds between companies and the media as part of the collective process of reciprocal influence that exists during communication (McCombs & Shaw, 1993). In essence, the theory provides a conceptual framework for informing who takes part in the process of building the media agenda. Additionally, it conceptualizes the process of salient formation as one of mutual influence (Kiousis, Mitrook, Wu & Seltzer, 2006). Consequently, the process can profoundly impact the way a society prioritizes the importance of certain societal issues (McCombs & Shaw, 1993).

The agenda building process has been characterized as a gatekeeping process. In other words, public relations practitioners' interaction with media gatekeepers can be viewed as a dance that ultimately results in news coverage that becomes part of the media agenda. Through the use of practices such as providing information subsidies to sources, public relations practitioners seek to have their information published and framed intact with the desired tone, and in alignment with the organizational messages they desire to present to their target audiences through the media (Ohl, Pincus, Rimmer & Harrison, 1995; Sweetser & Brown, 2008). Tanner's (2004) study of agenda building and the primary resources used by health reporters buttresses that perspective with results that indicated most health news reporters get their ideas for news articles through telephone

itches that come from health professionals. Journalists admitted that they rely on experts and often consult them as primary sources for articles.

It is important to highlight the specific role public relations practitioners play in the agenda building process. Not only do they influence what topics are covered by helping to build the media agenda, they also play a role in shaping how certain topics are portrayed, and therefore, ultimately defined and understood by the public (Kiousis et al., 2006).

Researchers have been investigating the praxis between agenda-building theory and its applications in the public relations field for decades. For instance, Turk and Franklin (1987) reported that public information officers at a state agency were able to raise the salience of their agencies in subsequent media coverage following communication campaigns geared toward building the media agenda. Hale (1978) demonstrated a positive connection between the length of news releases and the length of articles run in newspapers about the organizations. Harmon & White (2001) found that video news releases also had a substantial agenda building impact.

When attributes of an issue emphasized in news releases later become salient in the resulting news media coverage, this is second-level agenda building theory at work (Kiousis et al., 2006). Weaver et al.'s (1981) work indicated that beneath the surface of the theory, the object level of agenda setting wasn't the only important element at work in shaping the media agenda, but that at a more granular level, objects that were being presented as salient were accompanied by numerous associated attributes. The findings suggested that exposure to the news media therefore shaped not only issue salience, but

the associated important attributes of each issue, which ultimately shaped the audience's images, views and perceptions. In other words, the attributes the audiences associated with a topic can impact what the media ultimately extracts as salient and presents to its audiences.

In essence, agenda-building theory attempts to explain why information about certain issues and attributes are made the focal point of attention, and widely disseminated for public information while other issues and attributes are not generally pushed out as salient pieces of information (McCombs & Shaw, 1993; Wanta, 2007).

Presidential emphasis on acts of terrorism in Africa showed a clear agenda-building trend with expanded media coverage of the issue as well as policy agenda impacts examined during and after the attacks (Wanta, 2007). Likewise, Fahmy et al. (2011) found President George W. Bush was able to influence media coverage on issues that revolved around the importance of invading Iraq because Saddam Hussein possessed weapons of mass destruction in a direct link to Al Qaeda. Notably, George W. Bush "massively employed public relations to mobilize the nation to attack Iraq, including informing U.S. media and the public that there was a connection between President Saddam Hussein and Al-Qaeda" (Fahmy et al., 2011, p. 323).

Shedding light on the second-level agenda building mechanism, Fahmy et al. (2011) provided further evidence that implanting a public relations strategy that aims to penetrate and impact media coverage through focusing on attributes emphasized during agenda building at the public relations practitioner level subsequently results in media coverage that focuses on those same attributes.

Chapter 3

Best Practices in Crisis Communication Strategies and Messaging

It is appropriate to briefly touch on Situational Crisis Communication Theory because it demands that there be a theoretical link between crisis situations and the resulting crisis response strategies that are employed by crisis communication managers to handle those situations (Coombs, 2007). Crisis communication managers who are aware of this research can make use of empirical knowledge versus simply relying on past case studies, which may have included unique sets of circumstances that could have impacted both the nature of the crisis, response strategies and evaluation results.

The theory also asserts that with any crisis situation, there is a need to accept some level of accountability and/or responsibility on the organization's part. From there, a conceptual link between the level and nature of responsibility accepted by the organization helps determine the best prescription and path forward toward managing the crisis situation (Coombs, 2007). This theory should be considered by communicators who are making decisions about the best method for aligning the selected crisis communication strategy with the most appropriate messaging attributes and elements that stand the best chances of protecting the organizational reputation most effectively.

The Function of Food Recall Notifications

As food product recall notifications are being developed, crisis communicators have a certain level of flexibility to craft messaging with a focus on specific attributes and elements that align with the crisis management strategy. Once those messages are crafted within a news release, the public information aspect of the food recall notification

process begins and the notification gets disseminated through the press in order to ensure public safety and awareness that a product may pose a public health or safety risk.

There are a number of case studies that indicate some companies fare better through a product recall than others. This study hypothesizes that in some aspects, companies may be in a better position to protect their reputations if they approach crisis communications in a manner that aligns with best practices in an attempt to garner media coverage and results that serve the purpose of making the public aware of an issue, while simultaneously maintaining the company's reputation.

Once the decision to recall a food product has been made, public relations practitioners have potentially entered crisis territory (Bernstein, 2006). In other words, the situation has reached a level of seriousness necessary to involve the media and thereby also becomes subject to the media effects that take place through the agenda building and agenda setting processes.

There are few studies that have looked at the relationship between food recall notifications and media coverage of organizations. This empirical study will provide support to the currently established body of research related to media effects theories to show that these theories apply at a practical level for use by crisis communication managers.

Food Safety Recalls and Crisis Management

The U.S. food industry is a highly regulated industry with numerous checks and balances in place to help secure the nation's food supply. On Jan. 4, 2011, the Obama Administration tasked one of the most prominent national agencies responsible for regulating the food industry, the U.S. Food and Drug Administration, with implementing the Food Safety Modernization Act (Hamburg, 2011). The new law, also known as FSMA, sets new requirements for the FDA and food manufacturers including providing the FDA with regulatory authority to require a firm to issue a food safety recall, more frequent inspections of food manufacturing plants, the prevention of imported foods into the country if foreign governments do not abide by FDA requirements and requiring food manufacturing firms to have written plans in place that detail steps by those firms to prevent food safety issues within their plants.

Despite the number of food quality and food safety requirements food manufacturers are required to adhere to, an examination of the FDA's recall archive database (which can be found on the agency's Web site) quickly indicates that the industry experiences numerous recalls on a daily basis. While the level of those recalls varies from a safety perspective from recalls that are unlikely to cause adverse health reactions, but that violate FDA labeling laws to recalls that could cause illness or death, the FDA takes steps to ensure that the public is alerted to some extent whether listing the recall on the FDA Web site or alerting the public through a news release (U.S. Food & Drug Administration, 2010).

Because recall notifications that reach the extent of requiring the use of the media to spread the word to consumers can many times place an organization into crisis management and crisis communication mode, it is important for organizations to have a product recall plan ready in order to proactively manage the crisis while simultaneously protecting the company's reputation (Bernstein, 2006).

Crises can often be predicted and expected. Shang & Hooker (2005) suggested that "although no organization can be fully prepared for every crisis, a firm can be prepared for those which are most likely" (p. 332). Best practices in risk and crisis communication focus on the importance of strategies such as transparency, taking responsibility and where appropriate, offering an apology to stakeholders regarding the crisis, and providing instructional messaging as well as self-efficacy guidelines that focus on offering people things to do in the event of an emergency (Sandman, 2006).

As food manufacturers consider product recalls through the lens of crisis management, preparation for managing a potential crisis and the early stages of an initial response could mean the difference between success and failure when it comes to protecting the company's reputation (Shang & Hooker, 2005). Appropriate messaging strategy plays a key role during initial response (Wang, 2007).

Best Practice in Food Recall Crises: Transparency

Widespread media coverage of a food product recall underscores the importance of making use of certain crisis communication best practice guidelines when communicating with urgency in the interest of public safety and transparency related to a food recall. In a recent crisis, consumers complained for weeks on yogurt maker

Chobani's Facebook page that they were experiencing stomach issues after consuming multiple varieties of the company's yogurt products. Following weeks of complaints from consumers, the company finally gave in and recalled 91 varieties of yogurt due to mold growth. The company's hesitancy to even admit there was a problem early on as well as its slowness to issue the recall did not buy positive points with the media or consumers (Laasby, 2013). This case highlights the importance of communicating transparently and honestly during an issue or crisis.

Because the media is a conduit to the public, it is equally important that sentiments expressed for the purpose of ensuring they reach targeted stakeholders are conveyed in communications with the media (Seeger, 2006). The media have a tendency to cover a phenomenon in a biased manner, coloring events in the manner in which they see fit whether that be positively, negatively or neutrally (Verdoolaege, 2005).

One way for a company to alleviate negative media coverage in a food recall crisis is to be transparent. Seeger (2006) notes that a significant body of crisis communication research emphasizes honesty as a best practice and pointing out that honesty helps build credibility and trust during all phases of the crisis. Organizations stand to benefit on the reputation front by being open and honest about the crisis at hand (Seeger, 2006). By assessing the crisis for the public and providing facts, a company can maintain credibility and establish trust with the media and the public (Seeger, 2006).

Honesty and transparency have been identified through research and best practice guidelines as holding an important role in helping shape media coverage related to a crisis event. Therefore, the following hypothesis is presented:

*H1: The tone of media coverage is more likely to be positive if the food recall notification includes messaging that communicates clear product identification information (**transparency**).*

The work of Frisby et al. (2012), Kioussis et al. (2006) and Sheaffer (2007) support the idea that salient attributes presented to the media during the first level of the agenda-building process can in turn impact the second-level of the agenda building process. This study also traces the relationship between the attributes presented and whether those attributes turn up in the resulting news coverage through the following hypothesis:

*H2: The attribute of **transparency** in food recall notifications will be transferred to news media coverage.*

Best Practice in Food Recall Crises: Acceptance of Responsibility

Coombs' (2007) research has referenced the role of attribution theory in the management of crisis communications as well, stating that organizations stand to receive lower reputational threats depending upon the manner in which the crisis is framed when it is communicated to stakeholders by the organization and via the media. The idea would suggest that because the media act as a conduit of information disseminated to the public, the agenda building process would be an important step for crisis communication managers to consider during the development of strategic messages. Attribution theory suggests that when a crisis unfolds, people look to place the blame on someone or something as the root cause of the crisis (Coombs, 2007).

Situational crisis communication theory suggests crisis managers use crisis response strategies that demonstrate some level of acceptance of responsibility by the organization for the crisis (Coombs, 2004). According to the theory, companies who accept responsibility tend to fare better in the media and in the public.

One classic case study heavily covered by the media and often referenced as a model for how management inside organizations should work through a crisis is the Tylenol tampering case, which affected Johnson & Johnson Corporation back in 1982. The company promptly assumed responsibility for an issue they were confidently certain they were not responsible for in order to protect public safety. “By withdrawing all Tylenol, even though there was little chance of discovering more cyanide-laced tablets, the company showed it wasn't willing to take a risk with public safety, even if it cost millions of dollars in the process” (Stefenac, 2013).

At that point in history, Tylenol’s response was novel compared to other companies, who, many times placed profits before the concerns of their customers. While the company’s brand experienced a huge blow, which impacted Tylenol’s profits and the brand’s reputation, the PR team worked to implement a strategy that would place the brand on the road to recovery and rebuild consumer confidence. Process changes inside the company and a redesign of the packaging and introduction of a tamper-resistant seal bought the company positive capital on the media coverage front.

Axia PR comments that:

“City Times and Advertising Age magazine went hand-in-hand with statements detailing the company’s road to recovery. A mention in The New York Times describing Tylenol’s rapid comeback created a wave of like-minded positive coverage that eventually saw shares climb back up to 24 percent, only six weeks after the onset of the crisis” (2013).

The case suggests that media coverage of an event might arguably be presented more positively when a company accepts responsibility for a crisis. Therefore, the following hypothesis is presented:

*H3: The tone of media coverage is more likely to be positive if the food recall notification demonstrates that the issuing firm takes a level of ownership for the issue (**acceptance of responsibility**).*

The attribute acceptance of responsibility will also be traced to determine whether it is present within the food recall notifications and, if so, whether a relationship exists between the presence of the attribute and the resulting news coverage through the following hypothesis:

*H4: The attribute of **acceptance of responsibility** in food recall notifications will be transferred to news media coverage.*

Best Practice in Food Recall Crises: Instructional Messaging

Instructional information is considered an essential part of crisis communication management by many researchers and practitioners. In Situational Crisis Communication Theory, once an organization has assessed the level of risk associated with the crisis based on the crisis cluster the situation falls into, it is important for the organization to protect itself against collateral reputational and financial damage (Coombs, 2007). This is

one of the reasons instructional messaging plays a key role in crisis communication messaging.

The media become important during the delivery of instructional messaging because they operate as a vehicle used to ensure stakeholders understand what to do to protect themselves or take precautionary measures.

In the arena of food product recall events, instructional messaging plays a particularly important role by communicating to the public what to do if they are impacted. A 2010 study that of the American public indicated that more than a quarter of those surveyed felt they weren't provided with adequate information to protect themselves or their families during major recalls that took place between 2006 and 2009 (Steelfisher, Weldon, Benson & Blendon, 2010).

Larsson (2010) lists the media as the most important information path for relaying instructional messaging during a crisis event. Other crisis communication case studies also note that the media play a critical role in crisis communication. Because crises can be exploited and exacerbated by the media, practitioners have an important role to play in proactively and strategically forwarding the appropriate messages to impacted stakeholders via the media (Coombs, 2011).

The literature suggests that effective crisis communication messages should be constructed based on instructional communication best practices that stem from research (Frisby et. al, 2011). Situational Crisis Communication Theory argues that instructing information *must* be provided as part of crisis communication response, that it should not be considered an option, but a requirement (Coombs, 2006). Coombs (2006) outlines three types of instructing information: "(1) crisis basics; the basic information about what

happened in the crisis event, (2) protection; what stakeholders need to do to protect themselves from harm, and (3) correction; what the organization is doing to correct the problem/prevent a repeat of the crisis” (p. 246).

Just as important as the instructional information communicated is the manner in which the media communicates it because information included or lack thereof can directly impact public response to the crisis (Angeli, 2012). As seen in the Tylenol case, media coverage related to a crisis tends to fare better when specific elements are present in the crisis communication messaging. Like acceptance of responsibility, instructional messaging has proven to play an important role in crisis communication. Therefore the following hypothesis is presented:

*H5: The tone of media coverage is more likely to be positive if the food recall notification includes **instructional messaging** for the consumer to follow.*

The attribute instructional messaging was also traced to determine whether it was present within the food recall notifications and, if so, whether a relationship existed between the presence of the attribute and the resulting news coverage through the following hypothesis:

*H6: The attribute of **instructional messaging** in food recall notifications will be transferred to news media coverage.*

Best Practices in Food Recall Crises: Apology

In his 1992 book on the importance of crisis communication preparedness, management and post-crisis strategy, Coombs suggests offering an apology as a potential part of the reputation management formula during a crisis.

Seeger (2006) concurs by stating that:

“The public responds much more positively to spokespersons that acknowledge their concerns and demonstrate human compassion for any harm that may have occurred. If the public sees an expression of genuine concern and empathy, it has more faith that the actions being undertaken or recommended are appropriate and legitimate” (p. 241).

Findings from Coombs’ & Holladay’s 2002 research, which reaffirmed Situational Crisis Communication Theory, also emphasized the importance of apology, stressing that organizational misdeeds must be taken seriously, and when necessary, apology and/or corrective action, should be implemented (Coombs & Holladay, 2002).

Because empathetic, apology-oriented messages are relayed via the media and, as mentioned earlier, the media play a role in coloring those messages, the following hypothesis is presented:

*H7: The tone of media coverage is more likely to be positive if the food recall notification includes a form of apology (**apology**).*

The research also aimed to determine whether the attribute apology was present within the food recall notifications and, if so, whether a relationship existed between the presence of the attribute and the resulting news coverage through the following hypothesis:

*H8: The attribute of **apology** in food recall notifications will be transferred to news media coverage.*

Chapter 4

Method

For the purpose of narrowing the scope and focus of this study, food recall notifications sent in the form of news releases, posted to the FDA Web site and fed through a subscription-based program that is well known in the food industry called Food Tracks were used to analyze the agenda building aspect of the food recall notification process. Resulting newspaper articles pulled both from within Food Tracks and Lexis Nexis were used to analyze the second-level agenda building effects of the food recall notification process.

To test the hypotheses, I conducted a content analysis of the product recall notifications issued by the Food and Drug Administration during calendar year 2013. I went through the entire population of food recall notifications within Food Tracks that had been issued during the year. Within the program, a targeted search was initiated to extract only food recall notifications that had been fed into the program from the FDA's archive of food recall notifications during 2013. Because Food Tracks also displays associated articles, this program was used as opposed to the FDA Food Recall Archive Web site only in order to provide preliminary information regarding whether the notification garnered news coverage.

The search within Food Tracks returned a total of 72 food recall notifications that could be linked to corresponding news coverage/articles to allow for the test of the hypotheses. Next, a search within Lexis Nexis was initiated for news articles that corresponded with the food recall notifications. Food recall notifications that did not have

corresponding news coverage that could be found either within Food Tracks or Lexis Nexis were not included in the dataset.

A similar method of data retrieval was used by Peijuan, Ting, and Pang (2009) in their content analysis study of how China worked to repair its image following a series of non-food industry related product recalls. In that study, the researchers used a news archival database similar to Lexis Nexis called Factiva, which is a subscription-based news and information content delivery tool that provides firms with search, alert and dissemination capability.

The quantitative content analysis of the details provided in each of the food recall notifications determined whether best practice guidelines were present in crisis communication relayed through the product recall notification and whether a correlation appeared to exist between the presence of best practice messaging and the resulting tone of media coverage. According to attribute agenda setting, the public's opinion of that manufacturer runs the risk of being potentially impacted by the media coverage.

Three individual student coders were used to analyze the product recall notifications (independent variables) as well as the attributes in the resulting news coverage (dependent variables). Codebooks (see Appendix A for food recall notification codebook and Appendix C for newspaper article codebook) and coding sheets (see Appendix B for food recall notification coding sheet and Appendix D for newspaper article coding sheet) were developed to guide the analysis and help the coders identify messaging related to the following variables: transparency, acceptance of responsibility, instructional messaging and apology. Operational definitions were developed based on

information from the literature review as well as an analysis of a small random sample of the larger data sample of 72 food product recall notifications. The coders were trained to search within each unit of analysis and code for the presence of specific attributes within the food product recall notifications and resulting news coverage.

Intercoder Reliability

Intercoder reliability was assessed with Krippendorff's alpha. Alpha is a common statistical measure of agreement used in content analysis research. Krippendorff's alpha coefficient is a statistical measure of the agreement achieved when coding a set of units of analysis, controlling for chance agreement.

An intercoder reliability determination of those operational definitions for the variables responsibility, transparency, instructional messaging and apology was made following a pilot coding session. A small dataset was compiled from a set of 15 food recall notifications retrieved from the FDA Archival Web site. The notifications were pulled from the year 2012 so as to not allow the coders to begin coding data that would be used in the actual dataset for the research project analysis.

The intercoder reliabilities for the best practice variables are as follows: responsibility: $\alpha = .724$, transparency: $\alpha = .819$, and instructional messaging: $\alpha = .694$. As for apology, none of the notifications included apologies, and therefore this variable was dropped from the analysis.

Based on the acceptable ranges provided by Krippendorff (2004), each of the first three variables returned results within the acceptable range. According to Krippendorff, "to assure that the data under consideration are at least similarly interpretable by two or

more scholars (as represented by different coders), it is customary to require $\alpha \geq .800$.

Where tentative conclusions are still acceptable, $\alpha \geq .667$ is the lowest conceivable limit” (p. 429).

Because the public relations industry does not maintain a consistent way to assess the sentiment, the tone of newspaper coverage was assessed using a methodology for categorizing the dependent variable (tone of newspaper coverage). The methodology was similar to the process used by Tsou, Kwong, Wong & Lai in the 2005 research comparison of tone of political communication between President George Bush and Presidential Candidate John Kerry. Their process took into account the polarity between positive and negative coverage, assigning a scoring system for distinguishing the two.

For the purposes of this research project—which considers the tone through a nominal unit of measurement versus an interval ratio continuous unit of measurement—an analysis of the dependent variable was assessed using a list of positive, neutral and negative words. The list was developed following a review of the news articles that were pulled from the larger data set of 72 cases. A simple random sample of 25 news articles pulled from the larger data set was reviewed to develop the list. Words that appeared to suggest positive action and response on the part of the recall-issuing firm were placed in the positive column on the list. For example, the following words were included in the positive column: action, immediate, working closely, coordinating, investigating. The negative column included words such as: sick, deadly, fatal, hospitalized, severe and extreme. The neutral column included words such as: potential, possible, inadvertent and distributed. For a full word list, see Appendix E.

Sentiment Analysis/Tone Assessment

The assessment of the tone was determined through a mathematical calculation, which subtracted the highest score (determined through a count of the amount of words) of either positive or negative points assessed from the lowest score of either positive or negative points assessed from the unit of analysis. Any assessed amount of neutral points was then subtracted from the remaining total to determine the appropriate categorization of sentiment for each article. For a detailed description of the procedure and the coding sheet, see Appendix F.

The correlation coefficient, Spearman's Rho, was used to assess the bivariate measures of association between strategies employed in food recall notifications and the tone of news coverage, and Pearson's correlation was used to assess whether there was a statistically significant relationship between the variables present in the food recall notifications and the resulting attributes that showed up in the newspaper coverage.

Chapter 5

Research Findings

*H1: The tone of media coverage is more likely to be positive if the food recall notification includes messaging that communicates clear product identification information (**transparency**).*

The relationship between the presence of transparency messaging within the food recall notifications and positive-toned newspaper coverage is not statistically significant ($\rho = -.20, p > .05$). Therefore, transparency does not appear to be associated with positive news coverage and the null hypothesis must be accepted.

*H2: The attribute of **transparency** in food recall notifications will be transferred to news media coverage.*

On the other hand, there is a moderately positive association between the use of transparency strategy in food recall notifications and the mention of this attribute in the resulting newspaper coverage ($r = .38, p < .001$). H2 is supported.

*H3: The tone of media coverage is more likely to be positive if the food recall notification demonstrates that the issuing firm takes a level of ownership for the issue (**acceptance of responsibility**).*

This hypothesis is not supported as the relationship between the two variables is not statistically significant ($\rho = -.04, p > .05$).

*H4: The attribute of **acceptance of responsibility** in food recall notifications will be transferred to news media coverage.*

However, there is a moderately positive relationship between the presence of acceptance of responsibility within the food recall notification and the presence of the variable in the resulting news coverage ($r = .36, p < .01$). Therefore, H4 is supported.

*H5: The tone of media coverage is more likely to be positive if the food recall notification includes **instructional messaging** for the consumer to follow.*

Instructional messaging was the only of the variables identified within the study that indicated statistically significant results between the presence of the variable and resulting positive news coverage. There is a moderately positive correlation between the presence of instructional messaging and resulting positively-toned newspaper coverage ($\rho = .21, p < .05$). Therefore, H5 is supported.

To further examine the relationship between the two variables, a logistic regression analysis was run to determine the predictability of receiving positively-toned newspaper coverage when instructional messaging is present within the food recall notification. Table 5.1 displays the results. The model is statistically significant ($\chi^2 = 65.59, p < .001, Cox \& Snell R^2 = .061, Nagelkerke R^2 = .122$). Table 5.1 indicates that there is a marginally significant relationship between instructional messaging and positive newspaper coverage ($B = 1.32, S.E. = .77, p < .10$). Furthermore, for every additional element of instructional messaging included within the food recall notification, the probability of receiving positively-toned news coverage increases by a ratio of 3.75.

Table 5.1**Logistic regression predicting positive tone of news coverage ($n = 72$)**

	B	S.E.	Wald	df	Sig.	Exp(B)
Instructional Messaging	1.322	.772	2.934	1	.087	3.751
Constant	-5.560	2.220	6.274	1	.012	.004

As a result, it may be worthwhile for crisis communicators to consider ensuring that they have included as much relevant instructional messaging as possible within the food recall notification not only for the purposes of providing a level of instruction to impacted stakeholders regarding how to respond to the food recall event, but also as a measure of reputational protection for the company.

*H6: The attribute of **instructional messaging** in food recall notifications will be transferred to news media coverage.*

Because of the statistical significance of the relationship ($r = .27, p < .05$) between the presence of instructional messaging within the food recall notification and the presence of the variable in the resulting newspaper coverage, the null hypothesis for H6 is rejected.

*H7: The tone of media coverage is more likely to be neutral to positive as opposed to a negative if the food recall notification includes a form of apology (**apology**).*

*H8: The attribute of **apology** in food recall notifications will be transferred to news media coverage.*

While three of the food recall notifications coded for the study included a form of apology, none of the newspaper articles coded included an apology. Therefore, there was not enough variance within the variable to conduct a statistical analysis on H7 or H8.

Chapter 6

Study Limitations

From a technical standpoint, the study faced two primary limitations, including limited articles available and housed within the subscription-based system, Food Tracks. This shortcoming resulted in a tedious, time-intensive data collection process.

Another point to note is that during the early stages of the study, the company, Food Tracks, was in the process of populating their database with food recall notifications dating back to 2009. The initial study design sought to analyze a larger data set dating back to 2009. However, the projected time-range for completion of the migration of the data spanned past the expected time-line for migration of the data into Food Tracks and for the deadline imposed upon this study.

Additionally, a great amount of the newspaper coverage found within Lexis Nexis came from an online news service called Progressive Media Group. The company is a privately held International group of companies that spans Media, Business information Services, Technology and Communications. While the company touts that more than 80 percent of Fortune 500 companies, and two million plus users actively take advantage of the service, the content analysis was limited by the fact that not more daily newspaper services around the country furnish Lexis Nexis with their articles to make them easily retrievable and accessible for studies such as this one, which seek to recreate the print news media environment directly associated with the food recall event as it unfolded. In other words, access to actual hard copy news clips from around the nation would have been the preferred the unit of analysis for media coverage.

A recommendation for improvement during future replication of this study to verify whether the hypotheses can be validated would be to have the researcher collect the dataset throughout the year, following recalls as they unfold and retrieving the subsequent news articles that show up in the print media from around the country versus attempting to collect them post-event. This improvement might help capture a more comprehensive collection of the news coverage and ultimately provide a more holistic view of the media landscape related to the food recall event.

Theoretically speaking, the sparseness of the variable, apology, posed a limitation because it did not allow for analysis of the apology variable. Knowledge of whether the variable is worthwhile to include within a food recall notification would help provide crisis communicators with valuable information regarding whether the inclusion of the attribute itself as part of their communication strategy actually pays dividends in terms of earning more positively-toned newspaper coverage. The near-absence of the variable within the dataset was surprising based on the fact that Situational Crisis Communication Theory (Coombs, 2007) identifies apology as a potential strategy and best practice for reputation management and protection during a crisis.

Because the purpose of the food recall notification is to ensure consumers understand the importance of investigating whether they may in fact possess the product being communicated about and take the instructed and appropriate action to ensure they are safe from any risks, it would be insightful to learn how well consumers actually pay attention to such communication of information as well as whether the communication prompts them to take action within a timely manner. Agenda setting allows for a look into public opinion. However, it would be difficult to design research that would allow

for investigation into the actions of consumers in real-time for an accurate picture into their follow-through or lack thereof once communication is disseminated.

Another limitation to note is the study's analysis of newspaper articles only. Because the media typically rely on multiple information subsidies when collecting information to relay to the public during a crisis situation, it would have been worthwhile to consider additional sources for inclusion in the analysis. For instance, a look at the impacts the agenda building role might have played in television media or social media might have offered an alternative perspective or some additional insight regarding the impact of food recall notification messages. Because the research design entailed content analysis only and did not delve deeper into additional factors that may have shaped messaging that ultimately appeared in the media following the crisis, it is difficult to know for certain whether the analyzed messages were gleaned directly from the news releases or impacted by other factors such as telephone interviews provided by the source or other similar kinds of supplemental information provided to the journalists.

Chapter 7

Discussion

In summary, this study helped provide insight into the operational level of the first- and second-level agenda building process at work, validating previous studies that assert the influence media sources can have over media coverage. The conceptual framework provided an approach toward analyzing the way the theory operates through the lens of the food recall notification process and can offer helpful information to crisis communication managers about which strategies and messaging may be the most appropriate to employ during a recall when the goal is to protect the company and/or brand reputation.

By investigating whether specific attributes present within food recall notifications subsequently had an impact on the tone of coverage as well as whether those attributes appeared in the resulting news coverage, this study provides several theoretical and practical considerations related to agenda building in the context of food recall notifications. From a practical standpoint, the study uncovered that instructional messaging appears to be the most impactful attribute to employ during the food recall notification process when seeking to gain positive news coverage. Surprisingly, however, acceptance of responsibility and transparency did not return statistically significant results related to gaining positively-toned news coverage.

Information from the literature review suggested that the research results should have returned positively-toned news coverage when attributes within the food recall notification demonstrated an acceptance of responsibility and transparency of information. Seeger (2006) emphasized the importance of using honesty to ensure a

foundation of trust and credibility when communicating with stakeholders. The best practice of transparency is called out as having the capability to ensure media trust of information coming from the organization as well.

In this particular study, transparency may not have fared well for the recalling company because while it is honorable and builds trust to be transparent in communication, it also puts the company in a position of having to openly communicate bad news to impacted publics that are emotional and not necessarily open to reason and understanding during the early stages of an issue or crisis. Therefore, while the best practice is certainly appropriate, necessary, honorable and ethical, it may not necessarily return positively-toned news coverage for a company. However, that is not to suggest that tone of media coverage is incapable of transitioning over time once audiences have moved past an emotional state and have moved more toward a state of acceptance regarding an issue where they may be more likely to become educated about a company's processes, how a situation may have taken place in the first place and confident in a company's commitment toward making corrective action steps to prevent the occurrence from happening again in the future.

Likewise, acceptance of responsibility may not have returned positively-toned media coverage due to the vulnerable position it places an organization in during the early stages of communication. The literature review references acceptance of responsibility as a best practice, pointing toward the Tylenol recall case, which took place during the '80s. However, the circumstances and state of the recall environment during the '80s may have set the stage for shaping the way the media viewed the company's response to the situation. During that time in history, few companies were stepping up to

accept responsibility and take corrective action, while simultaneously absorbing all related costs associated with the loss of sales and the implementation of operational changes (Stefenac, 2013).

From a theoretical standpoint, the study supports a research design that combines agenda building with sentiment analysis. The research design of this particular study was set up to provide a better understanding of the influence agenda building has on the food recall notification process. Future research should incorporate a look into the public opinion related to food recall events within a single research design to complete the agenda building and agenda setting cycle, which would in turn also offer more powerful practical information for crisis communication managers to leverage.

The study also took the additional step of evaluating the relationship between attribute salience in food recall notifications and resulting news coverage, finding that the relationship is in fact statistically significant in the case for every attribute evaluated and thus validating previous agenda-building research studies which assert the impact media sources can have on news coverage.

Chapter 8

Recommendations for Future Research

Walters et al.'s 1996 study not only took a look at the impacts of second-level agenda building, but delved deeper into the impact second-level agenda building can have once salient issues and attributes transcend the space of finding their way onto the media agenda. The study looked into the role second-level agenda building plays once it transforms into second-level agenda setting and the public is fully engaged, involved and participatory in the cycle. That said, this study focused only on the agenda-building cycle. A future study might consider taking a look at whether the attributes survive the cycle and actually become an important aspect of the consumers' agenda, which is key when it comes to determining how well an organization achieves not only the goal of reputation management but ensuring public safety.

Of particular importance are the results from this research, which indicate that positive news coverage is garnered in some ways through the presence of instructional messaging. A look at second-level agenda setting and whether food recall notifications are successful at getting consumers to determine whether they have a recalled product in their possession and knowing what to do if they do have the product would add to the knowledge crisis communicators and their quality assurance coworkers could use to make informed decisions about messaging.

While the dataset for this study did not provide enough apologies within the food recall notifications to further analyze this variable, it would be interesting to conduct a research study that focuses solely on food recall notifications that include the apology variable to determine whether there may be a relationship between the inclusion of the

variable and resulting tone of news coverage. Because apology is often cited as a best practice strategy to be leveraged in higher level issues and or crisis communication, it would not be prudent to dismiss the use of the attribute in communication. However, it would be worthwhile for crisis communicators to understand whether their use of the variable might have short and or long-term reputational impact as it could be an important aspect of communication consultation during advice and counsel with clients for justification of using the variable. While there are certainly case studies that can be used to support the advice and counsel phase of building the communication strategy, empirical research can also help gain support for implementing specific strategies.

Because research that evaluates sentiment related to media coverage is fairly new on the scene, a study that could help validate whether the process used in this research study design is in fact effective would be beneficial. One suggestion might be a design that takes the bag of words approach and compares it to an approach that seeks to determine the emotional response of the consumer as the consumer reads through a food recall notification and/or resulting newspaper coverage. The goal would be to learn whether an alignment between the bags of words approach and the consumers' emotional responses to the information communicated exists.

Chapter 9

Conclusion

The findings in this research study add to the body of knowledge crisis communicators in the food industry can draw from to determine which attributes may be the most important to focus on when developing communications during food recall events. Of all the variables coded for, instructional messaging turned out to be the attribute most closely associated with the presence of positive tone in the resulting newspaper coverage. Though the other variables did not indicate a statistical significance in relation to tone, each attribute did show a statistically significant relationship in the news coverage when made salient within the food recall notification.

Issues and crisis communicators may find it worthwhile to learn that, based on the results of this study, the presence of instructional messaging appears to play a key role in determining whether the media might portray a food recall event using words that impart a more positive tone. It is also noteworthy to learn that each element of instructional messaging included can potentially generate positively-toned newspaper coverage by a factor of nearly 4.

This new information adds to the empirical knowledge available for crisis communicators who must inform the public through the media about a food recall event, while simultaneously protecting the company's reputation.

References

- Agresti, A. (2006). *An Introduction to Categorical Data Analysis: Second Edition*. Hoboken, N.J.: John Wiley & Sons, Inc.
- Baran, S.J. & Davis, D.K. (2012). *Mass Communication Theory: Foundation, Ferments, and Future*. Boston, MA: Wadsworth
- Angeli, E.L. (2012). Metaphors in the Rhetoric of Pandemic Flu: Electronic Media Coverage of H1N1 and Swine Flu. *Journal of Electronic Communication*. 42(3), 203-222.
- Axiapr.com Web site. PR Success Stories: Tylenol Crisis Averted with Responsive Crisis PR. <http://axiapr.com/thepublicrelationsblog/pr-success-stories-tylenol-crisis-averted-with-responsive-crisis-pr/>
- Baran, S.J. & Davis, D.K. (2012). *Mass Communication Theory: Foundation, Ferments, and Future*. Boston, MA: Wadsworth
- Bernstein, J. (2006). Making a Crisis Worse: The 11 biggest Mistakes in Crisis Communications. *Journal of Promotion Management*, 12(3/4), 39-45.
- Bodensteiner, C.A. (1995, Summer). Predicting Public and Media Attention Span for Public Issues. *Public Relations Quarterly*. 14-19.
- Cobb, R.W. and Elder, C.D. (1971). The Politics of Agenda-Building: An Alternative Perspective for Modern Democratic Theory. *The Journal of Politics*. 33(4), 892-915.
- Coombs, W. T. (1999b). *Ongoing crisis communication: Planning, managing, and responding*. Thousand Oaks, CA: Sage.
- Coombs, W. T. & Holladay, S.J. (2002). Helping Crisis Managers Protect Reputational Assets: Initial Tests of the Situational Crisis Communication Theory. *Management Communication Quarterly*, 15(2), 165-186.
- Coombs, W.T. (2004). Impact of Past Crises on Current Crisis Communication: Insights From Situational Crisis Communication Theory. *Journal of Business Communication*, 41(3), 265-289.
- Coombs, W.T (2006). The Protective Powers of Crisis Response Strategies: Manage Reputational Assets During a Crisis. *Journal of Promotion Management*, 12(3/4), 241-260.

Coombs, W.T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10(3), 163-177.

Coombs, W. T. (2011). Political Public Relations and Crisis Communication: A Public Relations Perspective. In J. Stromback and S. Kioussis (Eds.), *Political Public Relations: Principles and Applications* (pp. 214-234). New York: Routledge.

Fahmy, S.S., Wanta, W., Johnson, T.J. & Zhang, J. (2011). The Path to War: Exploring a Second-Level Agenda Building Analysis Examining the Relationship Among the Media, the Public and the President. *International Communication Gazette*. 73(4), 322-342.

Foodpoisonjournal.com Web Site (2013). Spinach recall among Huffington Post's worst product recalls of all time. Posted By Drew Falkenstein on February 24, 2010. <http://www.foodpoisonjournal.com/foodborne-illness-outbreaks/spinach-recall-among-huffington-posts-worst-product-recalls-of-all-time/>

Frisby, B. N., Sellnow, D. D., Lane, D. R. Veil, S. R., & Sellnow, T. L. (under review). Instructional messages in times of crisis: Targeting learning preferences and self-efficacy. Submitted September 2011 to *Journal of Management Education*.

Garcia, C. (2010). *Rethinking Walter Lippmann's legacy in the history of public relations*. *PRism* 7(1)
http://www.prismjournal.org/fileadmin/Praxis/Files/Journal_Files/2010_general/Garcia.pdf

Goetz, G. (2013). Peanut Corporation of America from Inception to Indictment: A Timeline. Food Safety News. <http://www.foodsafetynews.com/2013/02/peanut-corporation-of-america-from-inception-to-indictment-a-timeline/>

Goffman, E. (1986). *Frame Analysis: An Essay on the Organization of Experience*. New York, NY: Harper and Row
<http://is.muni.cz/el/1423/podzim2013/SOC571E/um/E.Goffman-FrameAnalysis.pdf>

Hamburg, M. A. (2011). *What does the New Food Safety Law Mean for You?*
<http://www.foodsafety.gov/blog/fsma.html>

Healey, J.F. (2012). *The Essentials of Statistics: A Tool for Social Research*. Belmont, CA: Wadsworth.

Hester, B. & Gibson, R. (2003). The economy and second-level agenda-setting: A time-series analysis of economic news and public opinion about the economy. *Journalism and Mass Communication Quarterly*. 80(1), 73-90.

Kiousis, S., Mitrook, M., Wu, X & Seltzer, T. (2006). First-and Second-Level Agenda-Building and Agenda-Setting Effects: Exploring the Linkages Among Candidate News Releases, Media Coverage, and Public Opinion During the 2002 Florida Gubernatorial Election. *Journal of Public Relations Research*. 18(3), 265–285.

Kiousis, S., Lanskin, A. & Kim, J.Y. (2011). Congressional Agenda Building: Examining the Influence of Congressional Communications from the Speaker of the House. *Public Relations Journal*. 5(1), 1-14.

Kiousis, S., Bantimaroudis, P. & Ban, H. (1999). Candidate Image Attributes: Experiments on the Substitute Dimension of Second Level Agenda Setting. *Communication Research*.

<http://crx.sagepub.com/content/26/4/414>

Krippendorff, K. (2004). Reliability in Content Analysis: Some Common Misconceptions and Recommendations. *Human Communication Research*, 30(3), 411–433.

Larsson, L. (2010). Crisis and Learning. In W. T. Coombs and S. J. Holladay (Eds.) *The Handbook of Crisis Communication* (pp. 713-717). Malden, MA: Wiley.

Laasby, G. (2013). Consumers call for expansion of Chobani yogurt recall: Company says it made mistakes but is working hard to satisfy customers.

<http://www.jsonline.com/watchdog/pi/consumers-call-for-expansion-of-chobani-yogurt-recall-b99106694z1-225273141.html>

Lippman, W. (1922). Public Opinion. Mineola, New York: Dover, Publications, Inc.

McCombs, M.F. & Shaw, D.L. (1993). The evolution of agenda-setting research: twenty-five years in the marketplace of ideas. *Journal of Communication*. 43(2), 58-67.

McCombs, M. F., Llamas, J. P., Lopez-Escobar, E. & Rey, F. (1997). Candidate Images in Spanish Elections: *Second Level Agenda Setting Effects*. *Journalism & Mass Communication Quarterly*. 74(4), 703-717.

Ohl, C.M., Pincus, J. Rimmer, T. & Harrison, D. (1995). Agenda Building Role of News Releases in Corporate Takeovers. *Public Relations Review*. 21(2):89-101.

Sandman, P. (2006). Crisis Communication Best Practices: Some Quibbles and Additions. *Journal of Applied Communication Research*. 34(3), 257-262.

Scheufele, D. & Tewksbury, D. (2007). Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models. *Journal of Communication*. 57(1), 9-20

- Seeger, M.W. (2006). Best Practices in Crisis Communication: An Expert Panel Process. *Journal of Applied Communication Research*. 34(3). 232-244.
- Semetko, H. A. & Valkenburg, P.M. (2000). Framing European Politics: A content analysis of press and television news. *Journal of Communication*, 50(2), 93-110.
- Shang, W. & Hooker, N.H. (2005). Improving recall crisis management: should retailer information be disclosed? *Journal of Public Affairs*. 5, 329-341.
- Sheafer, T. (2007). How to evaluate it: The role of story-evaluative tone in agenda setting and priming. *Journal of Communication*. 57, 21-39
- Steelfisher, G., Weldon, K. Benson, J. & Blendon, R.J. (2010). Public perceptions of food recalls and production safety: Two Surveys of the American Public. *Journal of Food Safety*. 30(4) 848-866.
- Stefenac, R. (2013). Lessons Learned; Some timely advice about three hot issues -- namely consumer privacy, crisis management and labour force adaptation -- that prospective MBA students will learn at school and the rest of us should always remember. *Financial Post Business Magazine*.
- Stromback, J. & Kioussis. (2011). *Political Public Relations: Principles and Practice*. New York, N.Y.: Taylor & Francis
- Tanner, A. (2004). Agenda Building, Source Selection and Health News at Local Television Stations: A Nationwide Survey of Local Television Health Reporters. *Science of Communication*. 25(4), 350-363.
- Tsou, B.K.Y, Kwong, O.Y., Wong, W.L. & Lai, T.B.Y. (2005). Sentiment and Content Analysis of Chinese News Coverage. *International Journal of Computer Processing of Oriental Languages*. 18(2), 171-183
- U.S. Food and Drug Administration (2010). *FDA 101: Product Recalls. From First Alert to Effectiveness Checks*.
<http://www.fda.gov/downloads/ForConsumers/ConsumerUpdates/UCM143332.pdf>
- Verdoolaege, A. (2005). Media representations of the South African Truth and Reconciliation Commission and their commitment to reconciliation. *Journal of African Cultural Studies*, 17(2), 181-199.
- Walters, T. N., Walters, L.M. & Gray, R. (1996). Agenda Building in the 1992 Presidential Campaign. *Public Relations Review*. 22(1), 9-24
- Wang, Alex. (2007). Priming, Framing, and Position on Corporate Social Responsibility. *Journal of Public Relations Research*. 19(2), 123-145.

Wanta, W. (2007). Terrorism and Africa: A Study of Agenda Building in the United States. *International Journal of Public Opinion Research*. 19(4), 434-450.

Wuensch, K. L., & Poteat, G. M. (1998). Evaluating the morality of animal research: Effects of ethical ideology, gender, and purpose. *Journal of Social Behavior and Personality*, 13, 139-150.

Young, C.L. & Flowers, A. (2012). Fight Viral with Viral: A Case Study of Dominoes' Pizza's Crisis Communication Strategies. *Case Studies in Strategic Communication*, 1, 93-106.

<http://cssc.uscannenberg.org/cases/v1/v1art6>

Appendix A: Food Recall Notification Codebook

Unit of Analysis: The unit of analysis is the Food Product Recall Notification retrieved from the FDA Web site.

Instructions: Read through the entire notification, then code the item using the printed coding sheet.

Item ID Number: Write in the name of the file (Ex. 0523 – Nash Fitch company recalls...)

Food Recall Notification Title: Write in the headline of the notification.

Coder: Write your name to indicate that you are the one coding the file.

Date: Indicate the date published on the Food Recall Notification using a 6 digit code related to the date (e.g., May 23, 2005 is 052305).

Best Practice in Communication Messaging Attributes

Acceptance of Responsibility

Does the notification suggest that the company is accepting responsibility for the reason the product is being recalled? Does the organization that is issuing the product recall in some way acknowledge that the reason the product is being recalled has something to do with processes, procedures or operations that are within the company's control?

Does the notification provide information about corrective action items that have been taken or will be taken (e.g., holding back product from the marketplace, contacting customers/retailers to inform them about the situation)? Does the notification provide the reader with any information regarding how the company intends to arrest the problem and take corrective action to protect public safety?

Does the notification provide make mention of any process changes that are taking place inside the company to arrest the crisis and prevent it from happening again in the future? Does the notification provide the reader with any information regarding what the company intends to do to prevent the problem from occurring again in the future?

Does the notification make any mention of the manufacturer working with regulatory agencies or other authorities to manage the recall process? Is there any mention that the company has reached out to regulatory agencies? Is there any mention that the company is working with regulatory agencies to ensure that the recall process is being managed in alignment with regulatory guidelines?

Transparency

Does the notification include some or all of the following product data: UPC code, product size, use by/best by/sell by date? Check the entire product recall notification. If the UPC code, product size *and/or* one of the following are listed, the box for this question may be checked: use by, best buy or sell buy.

Does the notification inform readers about whether any illnesses or death have taken place to date? Does the notification tell the reader whether any illnesses or deaths have taken place?

Does the notification inform readers about the potential risks associated with using the recalled product? Does the notification provide specific information about the risks associated with using the product being recalled? For example, if a pathogen is the reason the product is being recalled (e.g., salmonella), does the notification tell the reader the risks associated with salmonella poisoning?

Does the notification provide a reason regarding why the product is being recalled (e.g., consumer complaint (s)/random product test turned up issue/reports of sicknesses/illnesses)? Does the notification provide any background to the reader regarding how the organization determined the need to issue the product recall? For example, does the notification tell reader that a consumer complaint led to an investigation, which led to the product recall?

Does the notification mention where the consumer can view photos/images of the product? Is there a link to images the consumer can review to help identify the product?

Does the notification provide information about the geographic locations impacted by the recall? For instance, does the product recall notification name specific states the product was recalled from?

Does the notification provide information about the specific stores where the product may have been sold? For instance, does the product recall notification mention that the item may have been purchased at grocery stores, gas stations or convenience stores to provide the consumer with specific information about where they may have purchased the product to help with identification of the recalled product?

Instructional Messaging

Does the notification provide consumers with a toll-free number to call if they have questions? Does the notification offer a toll-free number and encourage consumers to call if they have questions related to the recall?

Does the notification list an email address that can be used by consumers to contact the company? (an email that is listed for media is OK as well). Some notifications list an email address for people to call to answer questions about the recall. Does the notification list a contact person's name and phone number?

Does the notification provide consumers with instructions regarding what they should do with the product? For instance, does the notification instruct consumers not to eat the product? Does the notification tell consumers to discard the product or call a toll-free number to receive a refund?

Does the notification provide consumers with instructions regarding what they should do if they are concerned they may have ingested the recalled product? For instance, does the notification advise consumers to seek medical attention if they believe they may have ingested the product or tell them to avoid eating more of the product?

Does the notification provide consumers with information regarding how they can return the product or get a refund? For instance, does the notification tell consumers to take the product back to the store where it was purchased and request a refund or call the 1-800 number to request a refund?

Apology

Does the notification imply that the company is apologetic for the recall event? Does any of the messaging in the recall notification mention that the company is sorry for the inconvenience or any other messaging that would indicate the company is apologetic?

Does the notification include a quote from someone in authority offering an apology to impacted stakeholders? For instance, does the notification include a quote from someone in the company that offers an apology for the recall?

Appendix B: Food Recall Notification Coding Sheet

Unit of Analysis: Food Product Recall Notification

ID# _____

Notification Title:

Coder Name:

Date: _____ (6 digit code: May 23, 2005 is 052305)

Best Practice in Communication Messaging Attributes:

Step 1: Place an X in the box if the answer to the question is yes. Leave the box blank if the answer the question is no.

Step 2: In the box next to the category, write the total number of X's for that category. If there are no boxes checked, write in a 0.

Acceptance of Responsibility - _____ Possible Score (0 to 4)

_____ Does the notification suggest that the company is accepting responsibility for the reason the product is being recalled?

_____ Does the notification provide information about corrective action items that have been taken or will be taken (e.g., holding back product from the marketplace, contacting customers/retailers to inform them about the situation?)

_____ Does the notification provide make mention of any process changes that are taking place inside the company to arrest the crisis and prevent it from happening again in the future?

_____ Does the notification make any mention of the manufacturer working with regulatory agencies or other authorities to manage the recall process?

Transparency - _____ Possible Score (0 to 5)

_____ Does the notification provide specific information regarding some or all of the following product data: UPC code, product size, use by/best by/sell by date?

_____ Does the notification inform readers about whether any illnesses or deaths have taken place to date?

_____ Does the notification inform readers about the potential risks associated with using the recalled product?

_____ Does the notification mention where the consumer can view photos/images of the product, OR does it provide a link to access photos/images?

_____ Does the notification provide information about the geographic locations impacted by the recall or provide the consumer with information about specific stores where the product may have been sold?

Instructional Messaging - _____ Possible Score (0 to 4)

_____ Does the notification provide consumers with a toll-free number and/or email address to call if they have questions (an email that is listed for media is OK as well)?

_____ Does the news article provide consumers with instructions regarding what they should do with the product (e.g., destroy, discard, return, etc.)?

_____ Does the notification provide consumers with instructions regarding what they should do if they are concerned they may have ingested the recalled product?

_____ Does the notification provide consumers with information regarding how they can return the product or get a refund/coupon/replacement?

Apology - _____ (0 to 2)

_____ Does the notification imply that the company is apologetic for the recall event?

_____ Does the notification include a quote from someone in authority offering an apology to impacted stakeholders?

Appendix C: Newspaper Article Codebook

Unit of Analysis: The unit of analysis is the Food Product Recall Notification retrieved from the FDA Web site.

Instructions: Read through the entire notification, then code the item using the printed coding sheet.

Item ID Number: write in the name of the file (Ex. 0523 – Nash Fitch company recalls...)

Coder: Select your name to indicate that you are the one coding the file.

Date: Indicate the date published on the Food Recall Notification using a 6 digit code related to the date (e.g., May 23, 2005 is 052305).

Best Practice in Communication Messaging Attributes

Acceptance of Responsibility

Does the news article suggest that the company is accepting responsibility for the reason the product is being recalled? Does the organization that is issuing the product recall in some way acknowledge that the reason the product is being recalled has something to do with processes, procedures or operations that are within the company's control?

Does the news article provide information about corrective action items that have been taken or will be taken (e.g., holding back product from the marketplace, contacting customers/retailers to inform them about the situation)? Does the article provide the reader with any information regarding how the company intends to arrest the problem and take corrective action to protect public safety?

Does the article make mention of any process changes that are taking place inside the company to arrest the crisis and prevent it from happening again in the future? Does the notification provide the reader with any information regarding what the company intends to do to prevent the problem from occurring again in the future?

Does the article make any mention of the manufacturer working with regulatory agencies or other authorities to manage the recall process? Is there any mention that the company has reached out to regulatory agencies? Is there any mention that the company is working with regulatory agencies to ensure that the recall process is being managed in alignment with regulatory guidelines?

Transparency

Does the article include some or all of the following product data: UPC code, product size, use by/best by/sell by date? If the UPC code, product size *and/or* one of the following are listed in the article, the box for this question may be checked: use by, best buy or sell buy.

Does the article inform readers about whether any illnesses or death have taken place to date? Does the article tell the reader whether any illnesses or deaths have taken place?

Does the article inform readers about the potential risks associated with using the recalled product? Does the notification provide specific information about the risks associated with using the product being recalled? For example, if a pathogen is the reason the product is being recalled (e.g., salmonella), does the notification tell the reader the risks associated with salmonella poisoning?

Does the article provide a reason regarding why the product is being recalled (e.g., consumer complaint (s)/random product test turned up issue/reports of sicknesses/illnesses)? Does the article provide any background to the reader regarding how the organization determined the need to issue the product recall? For example, does the article tell the reader that a consumer complaint led to an investigation, which led to the product recall?

Does the article mention where the consumer can view photos/images of the product? Is there a link to images the consumer can review to help identify the product?

Does the article provide information about the geographic locations impacted by the recall? For instance, does the article name specific states the product was recalled from?

Does the article provide information about the specific stores where the product may have been sold? For instance, does the article mention that the item may have been purchased at grocery stores, gas stations or convenience stores to provide the consumer with specific information about where they may have purchased the product to help with identification of the recalled product?

Instructional Messaging

Does the news article provide consumers with information about how to contact the company with questions/to get more information? Does the article offer a toll-free number and encourage consumers to call if they have questions related to the recall? Is an email address that can be used by consumers to contact the company listed? Does the article list a contact person's name and phone number?

Does the article provide consumers with instructions regarding what they should do with the product? For instance, does the article instruct consumers not to eat the product? Does the notification tell consumers to discard the product or call a toll-free number to receive a refund?

Does the article provide consumers with instructions regarding what they should do if they are concerned they may have ingested the recalled product? For instance, does the article advise consumers to seek medical attention if they believe they may have ingested the product or tell them to avoid eating more of the product?

Does the article provide consumers with information regarding how they can return the product or get a refund? For instance, does the article tell consumers to take the product back to the store where it was purchased and request a refund or call the 1-800 numbers to request a refund?

Apology

Does the article imply that the company is apologetic for the recall event? Does any of the messaging in the article mention that the company is sorry for the inconvenience or any other messaging that would indicate the company is apologetic?

Does the article include a quote from someone in authority offering an apology to impacted stakeholders? For instance, does the article include a quote from someone in the company that offers an apology for the recall?

Appendix D: Newspaper Article Coding Sheet

Unit of Analysis: Newspaper Article

ID# _____

Article Title: _____

Coder Name: _____

Date of Newspaper Article: _____ (6 digit code: May 23, 2005 is 052305)

Article Source: _____

Messaging Attributes that Turned Up in Newspaper Coverage:

Step 1: Place an X in the box if the answer to the question is yes. Leave the box blank if the answer the question is no.

Step 2: In the box next to the category, write the total number of X's for that category. If there are no boxes checked, write in a 0.

Acceptance of Responsibility - _____ Possible Score (0 to 4)

_____ Does the news article suggest that the company is accepting responsibility for the reason the product is being recalled?

_____ Does the news article provide information about corrective action items that have been taken or will be taken (e.g., holding back product from the marketplace, contacting customers/retailers to inform them about the situation)?

_____ Does the news article provide make mention of any process changes that are taking place inside the company to arrest the crisis and prevent it from happening again in the future?

_____ Does the news article make any mention of the manufacturer working with regulatory agencies or other authorities to manage the recall process?

Transparency - _____ Possible Score (0 to 5)

_____ Does the news article provide specific information regarding some or all of the following product data: UPC code, product size, use by/best by/sell by date?

_____ Does the news article inform readers about whether any illnesses or deaths have taken place to date?

_____ Does the news article inform readers about the potential risks associated with using the recalled product?

_____ Does the news article mention where the consumer can view photos/images of the product, OR does it provide a link to access photos/images?

_____ Does the news article provide information about the geographic locations impacted by the recall or provide the consumer with information about specific stores where the product may have been sold?

Instructional Messaging - _____ Possible Score (0 to 4)

_____ Does the news article provide consumers with a toll-free number and/or email address to call if they have questions (an email that is listed for media is OK as well)?

_____ Does the news article provide consumers with instructions regarding what they should do with the product (e.g., destroy, discard, return, etc.)?

_____ Does the news article provide consumers with instructions regarding what they should do if they are concerned they may have ingested the recalled product?

_____ Does the news article provide consumers with information regarding how they can return the product or get a refund/coupon/replacement?

Apology - _____ (0 to 2)

_____ Does the news article imply that the company is apologetic for the recall event?

_____ Does the news article include a quote from someone in authority offering an apology to impacted stakeholders?

Appendix E: Sentiment Analysis/Tone Word List for Quantitative Analysis

Sentiment Analysis (Tone) Word List

Positive Tone Words	Neutral Words	Negative Words
Healthy	Uncommon	discard
Recognized	Linked	Severe
Stringent	Consume	Allergy
Thoroughly	Announced	Sensitivity
Promptly	Inadvertently	Serious
Safety	if	Life-threatening
Examine	May/ Can	Allergic
Check	Connection	Reaction
Initiated	Distributed	Error
Action	Possible	Undeclared
Priority	Information	Risk
Soon as possible	Appears	Recalled
Working closely	Reported	Intolerant
Expedite	Advised	Warned
Assure	Potentially	Not declared
Quality	cause	Not mentioned
Safety	associated	Incorrect
Safe	Rarely	Affected
Highest	sometimes	Not
standards	could	Contamination
advise		Fatal
Voluntarily		Disease
Aware		Defect
Cooperation		Extremely
Limited		Intense
Full refund/reimbursement		Infection
Exchange		Weak
For more information		Old
Isolated		Frail
Corrective		complain
Action		Headache
Correctly		Nausea
No illnesses		Symptoms
No reported reactions		Miscarriage
No other		Infected
No reports		Problem
No safety concern		Injuries
No food safety concern		Not eat
Investigation		Destroy
Return		Deadly

Single		Loose
Ensure		Spoilage
Work with		Issue
Agreed		Remove
Precautionary		Dispose
Recognized		Pathogen
Specific		Illness
replacement		Repercussion
Immediate		Outbreak
Identified		Killed
Monitoring		Scrutiny
		Nervous
		No comment
		Worst
		Financial loss
		Shut down
		Sickened
		Terrible
		Bacterial
		Thrown away
		Pain
		Death
		Died
		Hospitalized
		Poisoned
		Fails

Appendix F: News Article Sentiment Analysis/Tone Coding Sheet

Unit of Analysis: Newspaper Article

Case #

Article Title:

Date of Newspaper Article:

(6 digit code: May 23, 2005 is 052305)

Article Source:

Article's assessed tone

Step 1: Using the Find Command in Microsoft Word, go through each paragraph of the article searching for any of the words listed in the positive, neutral or negative column of the sentiment analysis list of words.

Step 2: Count the number of positive words identified. Count the number of neutral words identified. Count the number of negative words identified. The highest score for either sentiment equals the assessed sentiment. (For example, if the article contains 12 positive words and 5 negative words, it will be weighted positively. If the article contains 7 neutral words and 5 positive words, it will be weighted positive. If the article contains equal amounts of each, it will be weighted neutral).

_____Positive words

_____Neutral words

_____Negative Words

Assessed tone = _____