

ISSUES MANAGEMENT ON FACEBOOK: HOW FORTUNE 500 FOOD CONSUMER
PRODUCTS CORPORATIONS ARE USING FACEBOOK FOR OBESITY ISSUE
FRAMING AND MANAGEMENT

By

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To my father, mother and sister for their constant love, support and encouragement

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ISSUES MANAGEMENT ON FACEBOOK: HOW FORTUNE 500 FOOD CONSUMER
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Obesity has become a major issue to stakeholders of food corporations. Many food corporations have been targets of criticism, accused of contributing to growing obesity numbers. To diffuse potential crises, food corporations must actively manage the obesity issue in the pre-crisis stage. This study provides a benchmark and an opportunity for greater understanding of how to manage issues, foster two-way communication with stakeholders and frame the obesity issue on Facebook.

To analyze how food corporations are managing and framing the obesity issue on Facebook, a quantitative content analysis was used. The sample data included corporate messages posted between January 1, 2011 and December 31, 2011 by ten major corporations in the food consumer products industry.

Results show that corporations in this sample are not maximizing issues management efforts on this medium. Results also show that when practitioners use messages that seek feedback/comments from stakeholders or messages that ask stakeholders personal questions, stakeholders are more likely to engage in dialogue through comments. When practitioners ask personal questions and prompt stakeholders

to click “like,” it generates more positive reaction. This study also reveals that some popular obesity issue frames found in traditional media (Product Nutrition and Global Initiatives frames) are also popular on social media. However, the Marketing Practices frame (often used in traditional media) is not frequently adopted in social media. Based on the results, the Product Nutrition frame is the most effective obesity issue frame in terms of generating dialogue with and positive reaction from stakeholders.

CHAPTER 1 INTRODUCTION

The obesity issue is a prevalent health concern in the United States. The Centers for Disease Control and Prevention claims that adult obesity is common, with about one-third of all U.S. adults considered obese (Centers for Disease Control and Prevention, 2011). According to the National Health and Nutrition Examination Survey, in 2007-2008, about 32.2 percent of men and 35.5 percent of women are obese (Flegal, Carroll, Ogden & Curtin, 2010). This national issue affects many Americans of different ethnicities, socioeconomic statuses, regions and ages (Centers for Disease Control and Prevention, 2011).

The obesity issue is a highly controversial issue facing the food industry, as many corporations are criticized for contributing to and augmenting the “obesity crisis” (Arnst, 2009). Some groups have labeled it a crisis for the food industry. However, for many food corporations, it has not yet caused normal business operations to stop or caused significant financial burden. Therefore, for purposes of this study, the obesity issue is not considered a crisis.

Even so, the obesity issue can potentially evolve into a crisis for food corporations, especially if practitioners do not manage the issue and communicate frequently with customers in the pre-crisis stage. According to Palese and Crane (2002), “it [issues management] is about having the capacity to act quickly in order to seize opportunity or to avert risk before impacts or implications become relevant to your business’ operations and/or reputation,” (p. 248). Issues management is a component in the pre-crisis stage and is a proactive, vital aspect of crisis prevention (Coombs, 2007).

According to Hallahan (1999), “public health issues have been shown to be dramatically influenced by the way they are presented” (p. 218). Previous research revealed that effectively framing messages can be beneficial in managing the obesity issue (Darmon, Fitzpatrick & Bronstein, 2008). However, previous research (Darmon et al., 2008) has been largely focused on studying media texts to determine which frames should be used when communicating to traditional media.

Traditional media outlets comprise an important stakeholder group and can play an influential role in framing customer perceptions of health issues (Heath & Palenchar, 2009). However, the advent of social media has opened up an opportunity for corporations to communicate directly to another important stakeholder group – customers. With social media providing an avenue for direct two-way interaction between a company and its customers (Perry, Taylor & Doerfel, 2003), corporations must monitor and manage issues on social media as well.

Among all social media platforms, Facebook is most commonly used by practitioners when communicating with stakeholders (Wright & Hinson, 2009; Macnamara, 2010). High usage by practitioners may be due to Facebook’s popularity among stakeholders, as the site’s statistics report more than 800 million users of their site, with more than fifty percent of active users accessing it daily (<http://newsroom.fb.com/content/default.aspx?NewsAreaId=22>). Therefore, this research will examine the following aspects of issues management and framing on Facebook.

A broad goal of this research is to understand how food corporations are using social media (Facebook) in issues management regarding the obesity issue. Further,

this research seeks to understand how food corporations are framing the obesity issue on social media by examining 1) which frames are being used most frequently, and 2) if the frames found to be popular in traditional media are also frequently adopted by food corporations when using social media, a platform controllable by the corporation, as there are no gatekeepers. To further explore the frames that are frequently used on social media, this study will also address which frames stimulate dialogue with stakeholders most frequently, stimulate positive reaction from stakeholders most frequently, and stimulate stakeholders to share the corporation's message with others most frequently.

Examining how food corporations are framing messages to manage the obesity issue is worthy of study, as the findings will contribute to both scholarship and practice. This study has implications for existing pre-crisis literature and growing literature on social media use. Tactics used when interacting with stakeholders via social media may differ from tactics and frames used when communicating about issues through traditional media. The unique relationship of framing as a tool for issues management on social media has not yet been studied.

This study also has practical implications. It will give practitioners in the food industry an understanding of how food corporations can use social media to proactively manage the obesity issue. It will also give practitioners empirical support to which they can refer when making important decisions in the field. By providing a current status of issues management in social media and by showing how food industry corporations manage and frame the obesity issue, this research will provide some benchmark to other food industry corporations.

CHAPTER 2 LITERATURE REVIEW

Obesity Issue Discourse

In order to understand the controversial nature of the obesity issue and its need for managing by corporations, it is necessary to review obesity issue discourse. The obesity issue has become increasingly more prevalent over the last 26 years (Lawrence, 2004). Lawrence (2004) traced the evolution of the obesity issue. According to Lawrence (2004), the obesity issue began gaining attention in 1985, when the National Institutes of Health panel first deemed it a public health issue. In 1990, the National Center for Health Statistics confirmed that the number of overweight Americans had officially exceeded the number of Americans who were not overweight. That same year, the number of *New York Times* articles about obesity increased by 50 percent. By 2001, the first lawsuits against fast food companies surfaced, with food corporations under fire for their alleged influence in the growing obesity figures (Lawrence, 2004).

Obesity discourse has been increasingly present in news media, but discussion of obesity has also been evident in popular media. Television programs and shows have raised awareness of the obesity issue through programs dedicated to what is considered by some as the “fight against obesity” (Zieff & Veri, 2009). Examples include cooking shows, Nickelodeon network’s partnerships in promoting the “Go Healthy Challenge,” the Kid Fitness program and “Shaq’s Big Challenge” (Zieff & Veri, 2009). Recent conversation has been sparked by the “Let’s Move” campaign, spearheaded by First Lady Michelle Obama in an attempt to fight childhood obesity (Superville, 2011). According to Superville (2011), Mrs. Obama said the obesity issue is picking up

momentum and activists of the obesity issue feel there is more awareness of this issue because of campaigns such as these.

While some of the aforementioned programs have promoted positive conversation about the obesity issue, others have focused on discussing the causal entities of obesity, of which the food industry is often a target (Zieff & Veri, 2009). Some popular media (films, books and television) have contributed to increased discourse about the issue. Scholars have mentioned that the influence of films and documentaries, like *Fast Food Nation* (2002), *Supersize Me* (2004), and books, like *Food Politics* (2002) and *Food Fight* (2003) have contributed to increased public discussion (Lawrence, 2004; Zieff & Veri, 2009).

In addition to increasing discourse, some media have attributed responsibility for the obesity issue. According to Zieff and Veri (2009), Eric Sclosser's 2002 *Fast Food Nation* attributes the obesity issue to "increasingly sedentary lifestyles and the elimination of school physical education programs, yet more persistently, the widespread availability of high-fat, inexpensive meals made possible by the fast food industry" (p. 164).

The fast food industry is not the only food industry that has come under criticism. Food consumer products corporations, such as Kraft Foods Inc., Kellogg Company and PepsiCo Inc., have received pressure from stakeholder groups to minimize their influence on obesity (Carpenter, 2004). Kraft Foods Inc. was facing pressure from stakeholders who wanted healthy, diet-oriented products. In 2003, Kraft Foods Inc. began reducing fat content in many of its North American distributed products to meet the needs of its diet-conscious customers (Carpenter, 2004). In 2004, Kraft Foods Inc.'s

chief executive Roger Deromedi explained that the company would refocus its portfolio and approaches to meet consumer demands, which called for products that aided in healthier eating and weight loss (“Obesity concerns,” 2004).

PepsiCo Inc., another major food consumer products corporation, began addressing obesity concerns sooner than other corporations (McTaggart, 2003). After understanding the pressure that was being put on the food industry, PepsiCo Inc. changed business practices by ensuring (and communicating to stakeholders) that 50 percent of new products would be healthier, in the nutritional benefits they would provide and the ingredients used to make them (McTaggart, 2003).

Thompson (2006) explained that some food packaging corporations have faced litigation due to concerns about the obesity issue. According to Thompson (2006), “Unlike Kraft Foods, PepsiCo and other would-be defendants – which shout almost daily about proactive changes to their portfolios and ad practices – Kellogg Company has seemingly ignored warning signs that the growing chatter over childhood obesity would lead down a path of litigation” (paragraph 2).

The obesity issue has become highly controversial for the food industry, as corporations face criticism from stakeholders (Arnst, 2009). It has the potential to escalate into a crisis for food industry corporations, especially for those that do not frequently communicate their actions and involvement in the obesity issue to stakeholders. Practitioners in the food industry can capitalize on opportunities to engage in two-way communication with stakeholders in the pre-crisis stage, before the issue escalates.

Issues Management

An issue is a topic or situation that causes concern among organizational stakeholders (Dougall, 2008) and can have an impact on the organization (Coombs, 2007). As explained above, the obesity issue has sparked some controversial discussion. Dougall (2008) explained that issues are often caused by gaps in one or more stakeholders' expectations of an organization or its actions. Previous literature suggested that bridging the gap can have important implications for organizations (Dougall, 2008). From this perspective, an issue, if not resolved between the organization and its concerned public, can affect the organization's relationship with stakeholders.

Issue managers should attempt to create an atmosphere that is "hospitable" for both the organization and its stakeholders, even those who may be critical of the organization's actions (Heath, 1990). Heath (1990) explained that people seek information in attempts to reduce their uncertainty when making decisions about issues. "How organizations perform will determine whether positive or negative attributions are made about them" (Heath, 1990, p. 54). Further, issues management communication can change stakeholders' perceptions and/or attitudes (Heath, 1990). In this view, important objectives of issues management are for an organization to increase understanding of stakeholders' concerns and perceptions of the issue and to provide information to help reach mutual understanding.

Hainsworth and Meng (1988) explained that an organization can share information with its stakeholders to aid in mutual understanding. Jones and Chase (1979) explained that in addition to providing information about the issue, it is important for companies to show initiative by developing solutions to the problem. Thus, two important aspects of

issues management should be incorporated into communication efforts: 1) information sharing (Hainsworth & Meng, 1988; Jones & Chase, 1979) and 2) providing solutions for the obesity issue (Jones & Chase, 1979). According to Verduin, Agarwal and Waltman (2005), some solutions the food industry can suggest include collaboration with government, schools and/or the medical community in order to create healthier options and education customers.

Giving customers the best nutrition information and the best nutritional food options may empower them to make individualized lifestyle changes that will help overcome energy imbalance and, in the long term, may help curb our struggle with obesity (Verduin, Agarwal & Waltman, 2005, p. 260S).

Perhaps the most important objective of issues management is to prevent a crisis. In order to understand issues management's role in crisis prevention, it is important to review issue lifecycle. Scholars (Dougall, 2008; Mahon & Waddock, 1992; Zyglidopoulos, 2003) explained that issues go through a lifecycle. Issues management is the proactive system used to shape an issue while it is developing and in turn, influence how it is resolved (Coombs, 2007) and how stakeholders construct the reality of the issue (Hallahan, 1999). There are many existing lifestyle models and most consist of similar sets of three or four lifestyle stages (Mahon & Waddock, 1992). Many of the existing models are dependent upon the perspective (corporate, pressure group or customer) of stakeholders (Mahon & Waddock, 1992).

For purposes of this research, what is important to understand is that scholars (Mahon & Waddock, 1992; Zyglidopoulos, 2003) have found the notion of evolution present in all lifecycle models. For a corporation, the evolution of an issue can be progressed by pressure from stakeholder groups (Coombs, 2010; Mahon & Waddock, 1992; Hainsworth & Meng, 1988; Register & Larkin, 2008). Other groups may "attempt

to shape the issue in ways that affect the corporation” (Mahon & Waddock, 1992, p. 26). As pressure from other stakeholder groups intensifies, it becomes increasingly more important for managers to integrate and institutionalize issues management into their overall strategy (Mahon & Waddock, 1992; Hainsworth & Meng, 1988).

On further discussion of an issue’s lifecycle, it is important for practitioners to realize the consequences of failing to proactively act and communicate. “As the issue matures, the number of engaged stakeholders and other influencers expands, positions on the issue become more entrenched and the strategic choices available to the organization shrink” (Douglass, 2008, paragraph 12). It is understood that an issue, if unmanaged in the pre-crisis stage, can escalate into a crisis (Coombs, 2007; Jaques, 2009; Regester & Larkin, 2005). Once escalated to the point of a crisis, the organization is only left with reactive options (Dougall, 2008). Therefore, managing highly controversial issues in the pre-crisis stage is essential.

Organizations should regularly engage in environmental scanning to assess trends and potential issues, or warning signs (Coombs, 2007; Gonzalez-Herrero & Smith, 2008). Because today’s Internet environment increases opportunities for issues and crises to grow (Gonzalez-Herrero & Smith, 2008), knowledge of the mechanisms that can be used on Internet communication platforms to manage issues is of particular importance. Perry et al. (2003) explained that computer-mediated communication tools, like the Internet and World Wide Web can help organizations scan through information and identify issues. Coombs (2007) explained that it is important to scan both traditional and online media. Some sources to scan include newsletters, public opinion polls,

online publications, news and business wires and consumer-generated media (Coombs, 2007) such as social media.

After identifying potential issues during the scanning process, organizations can make changes and act in ways that may reduce the potential for the issue to intensify (Coombs, 2007). Gonzalez-Herrero and Smith (2008) explained that stakeholders expect organizations to listen to their comments and proactively engage with them, well before the issue evolves into a crisis. Monitoring customer responses to messages can offer corporations insight into how their actions and communication are influencing the progression of the issue.

Gonzalez-Herrero and Smith (2008) recommended steps for companies to take when handling issues on online platforms in the pre-crisis stage:

1. Assign human and economic resources to issues management practices.
2. Create or use an online monitoring system to monitor online media.
3. Train the issues/crisis management team on how issues can develop on social media or the Internet.
4. Identify some online influencers and the issues for which they show interest or concern.
5. Prioritize issues based on their likelihood and potential impact on the organization.
6. Engage with stakeholders in the online community proactively- before a crisis occurs.
7. Do not just think locally. With the Internet, a local issue can evolve into a bigger, even globally reaching issue or crisis.
8. Prepare the organization's approach for communicating online. Often, the tone and language should be more informal than that of the corporate voice used in traditional communication messages (Gonzalez-Herrero & Smith, 2008).

Communication on Social Media Outlets

As implied by Gonzalez-Herrero and Smith (2008), online communication tactics may need to be different than that of traditional messaging tactics. This may be because previous research has considered online media to lend more two-way communication (Perry et al., 2003; Sweetser, 2010) and therefore, stakeholders' expectations of the type of communication may differ.

Hearit (1999) explained that communication technology has transformed stakeholders into more active groups. Sweetser (2010) pointed out the potential for information to become viral as interactive features become more available to stakeholders and the ease of sharing via online media increases. The availability of communication technology has created more opportunities for public issues to intensify (Hearit, 1999) and the accessibility has given stakeholders an increased sense of empowerment to voice their opinions about issues (Gonzalez-Herrero & Smith, 2008). Because of this, it is necessary for corporations to proactively address issues before rumors spread and dominate the online conversation (Gonzalez-Herrero & Smith, 2008).

As previously mentioned, stakeholders' expectations of the nature of communication with corporations differ across media. Using a personal touch in Internet communication is effective (Kent & Taylor, 1998). As previous explained in Gonzalez-Herrero and Smith's (2008) recommendations for steps in the issues management process, corporations should adjust the tone and language of online communication. Use of a conversational, personal voice in online communications is important for maintaining relationships with stakeholders who interact with a company online (Kelleher & Miller, 2006; Sweetser, 2010). In addition to more relaxed tone and

language, stakeholders expect transparent and frequent responses from corporations (Gonzalez-Herrero & Smith, 2008). “Those that fail to deliver it quickly leave themselves vulnerable to attack. The good news for companies is that the very tools that trigger or enable crises can also provide solutions to resolving them” (Gonzalez-Herrero & Smith, 2008, p. 152).

Perry et al. (2003) explained that Internet platforms offer organizations the opportunity to increase two-way communication by encouraging stakeholders to participate in dialogue. “It allows the organization to manage conflict more effectively, improve understanding and address stakeholder concerns” (Perry et al., 2003, p. 215). Many organizations take advantage of the interactivity components available on social media and other online platforms (Sweetser, 2010, Perry et al., 2003; Kim, Kim & Kang, 2011). Perry et al. (2003) studied the interactivity features used to foster two-way communication and to allow stakeholders to voice concerns or ask questions. Perry et al. (2003) found that proactive discussion is not only important during a crisis, but also important during pre- and post-crisis stages.

Kim et al. (2011) found interactivity components that *Fortune* 100 companies are using in Facebook messaging. Interactivity components found by Kim et al. (2011) included: prompting stakeholders to take general behavioral action, asking for event participation, prompting feedback or opinions from stakeholders and prompting discussion about stakeholders’ daily lives to personalize the message. Kim et al. (2011) found that fans were more likely to “like” a message if it was personalized. Kim et al. (2011) also found that the number of stakeholders’ comments was positively related to organizational messages that sought feedback from stakeholders and to messages

personalized by the organization. They also found that the frequency of stakeholders' comments was positively related to the frequency of the company's responsive comments and to its overall number of wall posts. In addition, more fans and the frequency of the organization's responsive comments led to more frequent posts by stakeholders on the company's wall (Kim et al., 2011).

Sweetser (2010) found the use of video to be an effective interactivity component in online interaction with stakeholders. Sweetser (2010) explained that video use is helpful in communicating the company's personality to stakeholders and allows stakeholders the opportunity to comment on the content.

While social media offers several interactive features, many organizations are not fully using these features in practice. McCorkindale (2010) studied how *Fortune* 50 companies are using social networking sites and found that organizations were using them as an opportunity to foster dialogue with stakeholders, but were not taking advantage of its full potential. Similarly, Waters, Burnett, Lamm and Lucas (2009) found this to be the case among nonprofit organizations that used Facebook. Macnamara (2010) surveyed senior public relations practitioners in Australia and found that many were using social media to listen to and obtain information from stakeholders, but only a small percentage reported two-way communication as their primary use for social media.

Some challenges practitioners reported included: stakeholders' expectations for quick responses, authorization to comment (particularly for government organizations) and a "loss of control" (Macnamara, 2010). Macnamara (2010) and McCorkindale (2010) found that many companies are unaware of how using social media coincides

with their overall business strategy. Because of this, a major challenge is the ability to define the objectives for social media use in a clear, understandable way that justifies the use of social media from a business perspective (McCorkindale, 2010; Macnamara, 2010).

Previous research (Wright & Hinson, 2009; Macnamara, 2010) found that Facebook is among the most popular, if not the most commonly used social media platform among organizations. “The 2008 PR Week/Burston-Marsteller CEO Survey reported organizations are more likely to use Facebook when communicating with stakeholders than any other social media” (Wright & Hinson, 2009, p. 15). The number of stakeholders that access Facebook offers companies opportunities to build and maintain relationships with them (Waters et al., 2008). According to Facebook’s statistics page (<http://newsroom.fb.com/content/default.aspx?NewsAreald=22>), there are more than 800 million active Facebook users. The average user has 130 friends and is connected to 80 community pages, groups and events. For these reasons, Facebook was chosen as the focus of this research study.

The aforementioned challenges further support the importance of this research. By studying how food corporations use social media for managing the obesity issue, practitioners can use this study as a benchmark for managing issues. To better understand this, this study raises:

Research Question 1

How are food corporations using social media (Facebook) in issues management regarding the obesity issue?

RQ1a: How often are food corporations addressing the obesity issue in comparison to overall number of messages (wall posts and responding comments)?

RQ1b: What kinds of issues management efforts do food corporations adopt when managing the obesity issue (e.g., information sharing or providing solutions for the obesity issue)?

RQ1c: What social media and interactivity tactics are food corporations using to increase two-way communication with stakeholders?

In addition to RQ1c, the following hypotheses were proposed, based on previous research findings:

H1: Stakeholders will be more likely to comment to the message if the corporation's message seeks feedback from stakeholders or if the corporation personalizes the message.

H2: Stakeholders are more likely to "like" the message if the corporation's message is personalized.

Framing the Obesity Issue

In addition to researching how food corporations are addressing the obesity issue, this study will identify the relevant frames commonly used by food corporations on social media. Framing is a tool that can be used for effective issues management and as such, is of importance to the purpose of this study.

Agenda-setting Theory and Information Subsidies

Before review of the literature on framing theory, it is necessary to briefly review agenda-setting and information subsidies. Agenda-setting theory refers to mass media's influence in setting the public agenda (Carroll & McCombs, 2003). The theory of traditional agenda-setting posits that if mass media makes a certain object, issue or topic prominent, then that particular object, issue or topic will be seen as more important among the organization's publics (Carroll & McCombs, 2003). The theory, in its relevance to public relations, posits that if practitioners can influence the salience of certain issues in media coverage/content, then they can influence public opinion (Turk, 1985; Kiousis, Popescu, & Mitrook, 2007; Carroll & McCombs, 2007).

Information subsidies are used by public relations practitioners to aid in influencing the media agenda, and in turn, shaping public opinion (Turk, 1985; Kiousis, Popescu, Mitrook, 2007). “They [public relations practitioners] are charged with the responsibility of providing ‘official’ organizational versions of reality to the media, in the hope that an organization’s view of what is real and important will be incorporated into media content” (Turk, 1985, p. 12). To accomplish this, practitioners provide proactive information subsidies (e.g., news releases, press conferences), as well as reactive information subsidies (e.g., interviews or providing answers to questions posed by journalists) (Turk, 1985; Kiousis, Popescu, & Mitrook, 2007).

According to Kiousis, Popescu and Mitrook (2007), “Second-level agenda-setting has linked the concept with framing by suggesting that news media attention can influence how people think about a topic by selecting and placing emphasis on certain attributes and ignoring others” (p. 151). Therefore, framing is an important concept in second-level agenda-setting and can be used to help influence the attitudes depicted in media content, and in turn, in public opinion.

Framing Theory

Hallahan (1999) explained that framing influences the psychological processes that stakeholders use to understand the world around them. Public relations practitioners have the ability to use framing to aid in a stakeholder’s “construction of social reality” (Hallahan, 1999). Obesity, like other health issues, is often framed by attribution of responsibility for the cause and solution of this public health issue (Lawrence, 2004). Lawrence (2004) explained that within society, there are competing frames about obesity. Zieff and Veri (2009) explained, “the obesity discourse has been framed by often sensationalist adjectives such as crisis, epidemic, pandemic and war;

these terms are often used inaccurately, serving to heighten the emotional, rather than scientific tone of the content” (Zieff & Veri, 2009, p. 155).

To combat the frames that attribute responsibility to food corporations and create negative perceptions of their involvement, practitioners should be proactive about framing the issue and their involvement on media platforms, like social media, in which there are no gatekeepers.

Darmon et al. (2008) studied obesity issue frames in traditional media. According to Darmon et al. (2008), Kraft Foods Inc. was one of the first major food corporations to take advantage of the opportunity to proactively manage the obesity issue by using effective message framing. “Confronted with the issue of obesity, Kraft Foods attempted not only to avoid a possible crisis, but also to find a way to turn the situation to its advantage” (Darmon et al., 2008, p. 278). For this reason, Darmon et al. (2008) studied Kraft Foods Inc. framing approaches to determine which frames were most receptive among traditional media stakeholders.

Darmon et al. (2008) used a case study methodology and conducted a qualitative content analysis of media texts (print and broadcast). As a result of their analysis, the researchers found five major themes that Kraft Foods Inc. used to manage the obesity issue: 1) Global Initiatives to Help Address the Rise in Obesity; 2) Product Nutrition; 3) Marketing Practices; 4) Consumer Information; and 5) Advocacy and Dialogue (Darmon et al., 2008, pp. 375-376). Table 2-1 describes each frame based on the frame name and descriptions of underlying sub frames within each frame.

In addition to these frequently used frames and sub frames within, Darmon et al. (2008) found that the Product Nutrition frame was most commonly used in traditional

media, followed by the Marketing Practices frame and the Global Initiatives frame.

Based on the frequencies of these frames in the media, these were seemingly the most interesting, important and/or newsworthy frames to traditional media. However, are these frames being frequently used in social media messaging as well? This study will attempt to answer this.

To better understand how food corporations are framing the obesity issue on social media and to compare those frames with the frames found to be used commonly in traditional media (based on Darmon et al. (2008) research), this study raises:

Research Question 2

How are food corporations framing the obesity issue?

Based on the literature review, the following hypotheses were proposed:

H3: The obesity issue frames used by food corporations in traditional media (found by Darmon et al. (2008)) will be similar to those frequently used in social media messaging.

H3a: The Product Nutrition frame will be the most frequently used obesity issue frame on social media.

H3b: The Marketing Practices frame will be the second most frequently used obesity issue frame on social media.

H3c: The Global Initiatives frame will be the third most frequently used obesity issue frame on social media.

In addition to the hypotheses proposed for testing, the following research questions were raised:

RQ2a: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used, are there statistically significant differences in terms of dialogue participation from stakeholders?

RQ2b: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used, are there statistically significant differences in terms of positive reaction from stakeholders?

RQ2c: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used,

are there statistically significant differences in terms of stakeholders' willingness to share the message with others?

Table 2-1. Descriptions of obesity issue frames found in traditional media

Frame	Description
Global initiatives to help address rise in Obesity (Global initiatives)	Focus on the organization's commitment to support healthier lifestyles, commitment to making it easier for customers to eat better, steps the organization plans to take to help battle obesity
Product nutrition	Focus on importance of product nutrition, portion size, nutritional characteristics of products, efforts to provide healthier options or improve nutritional value of current products
Marketing practices	Focus on the organization's intent to eliminate marketing in schools, criteria the organization will coordinate with the vending industry to decide which of the organization's products are most appropriate to offer in school vending machines, or organizational guidelines for advertising and marketing practices to stress healthy and active lifestyles
Consumer information	Focus on nutritional labeling, the organization's addition of nutrition information to product labels to help make consumer choices easier, health-related claims (all in the global market landscape)
Advocacy and dialogue	Focus on the organization advocating for public policy changes (primarily for schools and communities), efforts to increase conversation about the obesity issue with its stakeholders

Note: Adapted from Darmon, K., Fitzpatrick, K., & Bronstein, C. (2008). Krafting the obesity message: A case study in framing and issue management. *Public Relations Review*, 34(4), 373-379.

CHAPTER 3 METHODOLOGY

Through a quantitative content analysis, this study examined corporations in the food consumer products industry from the 2011 *Fortune* 500 companies list. The list was obtained from *Fortune's* online magazine (found at <http://money.cnn.com/magazines/fortune/fortune500/2011/industries/198/index.html>).

Sampling Procedure

This research examined the Facebook walls of *Fortune* 500 corporations from the food consumer products industry. Data were retrieved from Facebook wall posts dated from January 2011 through December 2011, or one calendar year. Company Facebook accounts were found via searching for the companies' names on Facebook's site. Many corporations had established more than one Facebook page for different campaigns or products. Official corporate Facebook URLs were checked using a Google search for the corporate Facebook URL address. Out of 14 corporations in the food consumer products industry ranked in the *Fortune* 500, nine had a corporate or general (non-campaign or non-product specific) Facebook page. Only general corporate Facebook pages were considered because the purpose of this study is to examine the corporation's official social media messaging. Out of the nine corporations that had an official corporate Facebook, only three parent company corporations (Kraft Foods Inc., Kellogg Company and PepsiCo Inc.) had at least 25 messages or more addressing the issue of obesity in the sample time period.

These three *Fortune* 500 parent corporations were deemed appropriate for this sample because they met the criteria and because they are examples of prominent corporations in the food consumer products industry. Kraft Foods Inc. is the nation's

largest packaged food manufacturer (Warner, 2005) and the second largest in the world behind Nestle (Carpenter, 2004), Kellogg Company is among the world's leaders in convenience foods and is considered the leading cereal producer (One-of-a-kind, 2006), and PepsiCo Inc. is a top consumer packaging company (McTaggart, 2003). All three parent companies were mentioned in articles to have changed their business practices to address the obesity issue. Kraft Foods Inc. outlined four areas of focus for new products, including weight management and nutrition delivery ("Obesity concerns," 2004). Kellogg Company started focusing on themes and programs that would center on avoiding obesity and help stakeholders achieve a balanced diet – themes Kellogg Company found would resonate with its target market (Stuart, 2007). According to McTaggart (2003), PepsiCo Inc. is the most notable, in that the corporation publicly committed to improving the health benefits in 50 percent of new products.

Within each of those three parent company corporations, at least two brand corporations were identified that also met the sample criteria of having posted at least 25 messages address the obesity issue in one calendar year (January 1, 2011-December 31, 2011). Brand corporations included: Jell-O[®] and Crystal Light[®] (Kraft Foods Inc. brands); Special K[®] and Frosted Flakes[®] (Kellogg Company brands); and Quaker[®], Gatorade[®] and Tropicana[®] (PepsiCo Inc. brands). The final sample included Facebook messages from 10 corporations: parent companies Kraft Foods Inc., Kellogg Company and PepsiCo Inc.; and brand companies Jell-O[®], Crystal Light[®], Special K[®], Frosted Flakes[®], Quaker[®], Gatorade[®] and Tropicana[®].

Facebook messages considered for this sample included official corporate wall posts (includes text-only posts, text posts linked with video, text posts linked with a

photo, and text posts linked with polls) and corporate comments posted in response to a stakeholder's post. For clarification, a wall post is a message (text-only, video, photo or poll) posted directly on the company's wall. A comment is a message that is posted in response to another. To determine which messages addressed the obesity issue, some keywords were adopted from previous literature and from news articles (keywords discussed in more detail in the "Variables Measured" section). All data were collected during the last two weeks of January 2012, saved in Microsoft Word documents, and then converted to PDF documents to prevent any new posts from interfering with the sample data. This was conducted in preparation for the coding procedure. A total of 514 Facebook messages (wall posts and responding comments) were coded for the sample.

Variables Measured

A coding sheet (Appendix A) was designed to obtain general information about each corporation's Facebook page. Coders coded (a) the number of stakeholders that "like" the company, and (b) the number of stakeholders that has "talked about" the company. According to Constine (2011), the number of stakeholders "talking about this" is linked to a Facebook metric that records Facebook users' interactions with the company in the past seven days only. The nature of the metric is that it only records and reports interactions that occurred during a one-week time period, and specifically within the past seven days. Interactions recorded by this metric include: liking a page; posting to a page's wall; liking, commenting or sharing a page post; answering a question posted; responding to an RSVP to an event; mentioning the company page in a post; photo-tagging a page; liking or sharing a check-in deal; or checking in at a place. This feature does not break up the specific instances. Rather, it consolidates them into one metric, which is refreshed daily to report the last seven days (Constine, 2011). In the

case of this study, since the data were collected on January 31, 2012, this metric reflected the number of stakeholders who “talked about” the company from January 25-31, 2012, or one week.

Variables Measured for Addressing the Obesity Issue (RQ1a)

To investigate how often food corporations are addressing the obesity issue in comparison to overall number of messages (RQ1a), the researcher coded (a) the total number of official corporate wall posts (not including responding comments) that address the obesity issue, (b) the total number of comments posted in response to stakeholders’ comments that address the obesity issue, and (c) the total number of corporate messages (wall posts and responding comments) that the corporation posted within the sample time period. To determine which messages address the obesity issue, some terms were found through emergent coding, a process in which the terms develop from factors found when examining the data (Wimmer & Dominick, 2011), including the following terms or forms of the terms: “obesity,” “nutrition,” “health,” “lifestyle,” “weight,” “portion(s),” “whole-grain,” and staying in shape (including “active,” “fit,” “sports”). Other terms were adapted from previous research (Verduin et al., 2005) that suggested companies may use the following terms: “low calorie,” “unsalted,” “no trans-fat,” or “cholesterol-free” when addressing the obesity issue. Other terms were flagged based on emergent coding and by their mention in news articles regarding company efforts to address the obesity issue: “diet” (Stuart, 2007; Carpenter, 2004); “fiber” (“Kraft flags,” 2005); “low-carb” (Carpenter, 2004), and “sugar-free” (Thompson, 2006).

Messages that included the keywords made up the sample, which was further stratified and evaluated for relevance to the obesity issue. Messages that included the keywords but were too short or vague to show relevancy to addressing the obesity issue

(e.g., “Exercise is nice.”) were eliminated due to their unclear relevancy. Messages that included these keywords but talked about them in the context of building up (for athletes) or in the context of malnutrition were also eliminated from the sample due to irrelevance to the obesity issue.

Variables Measured for Issues Management (RQ1b)

A second coding sheet (Appendix B) was designed to address the remaining research questions and hypotheses. To investigate the types of issues management efforts food corporations adopt when communicating about the obesity issue on social media (RQ1b), coders coded for corporate wall posts and responding comments that focus on (a) information sharing, and (b) providing solutions for the obesity issue, based on previous research (Hainsworth & Meng, 1988; Jones & Chase, 1979). For a better understanding of the type of information corporations are sharing, coders coded for the presence and frequency of the use of the terms: (a) obesity; (b) nutrition/nutritious; (c) health, healthy, healthier or healthiest; (d) diet; (e) lifestyle; (f) weigh or weight; (g) portion(s), serving size(s); (h) whole-grain; (i) staying in shape (including active, fit, fitness, sports, workout) (terms found through emergent coding); (j) low-calorie, reduced calorie; (k) unsalted, low-sodium, reduced salt/sodium; (l) low-fat, no trans-fat, reduced fat; and (m) cholesterol-free (terms suggested by previous research by Verduin et al., 2005). Coders also coded the presence and frequency of the following terms, found through emergent coding and by notice of mention in news articles, regarding company efforts to address the obesity issue: diet (Stuart, 2007; Carpenter, 2004), fiber (“Kraft flags,” 2005), low-carb, good carbohydrates (Carpenter, 2004), and sugar-free, reduced sugar (Thompson, 2006).

To understand the type of solutions corporations are providing, coders coded for messages that mention solutions (adapted from previous research by Verduin et al., 2005), such as: (a) collaborating with government; (b) collaborating with schools; (c) collaborating with the medical community; and (d) giving nutritional information or talk about providing the best nutritional choices to empower stakeholders to make the right decisions. Another item (collaborating with nonprofit organizations) was found through emergent coding and was included.

Variables Measured for Two-way Communication Elements (RQ1c, H1 and H2)

To examine the social media tactics food corporations are using to increase two-way communication with stakeholders (RQ1c, H1 and H2), three items were adopted from previous research (Kim et al., 2011) regarding interactivity components. Adopted items include messages that (a) seek feedback/opinions/comments from stakeholders (e.g., “What do you think?” or “Tell us how you feel”); (b) prompt stakeholders to act in some way (e.g., “Upload a photo,” “learn more by going to this website,” or “Try this recipe to stay healthy”); and (c) ask personal question (e.g., “Tell us your favorite healthy food,” “What is your favorite way to stay active?”). An additional item (the source of the corporation’s post) was developed through emergent coding. To discern a personal approach tactic used by the corporations, the source of the corporation’s post was coded (e.g., whether the corporate Facebook account is used for posting messages on Facebook or whether an individual is using his or her personal account to post official comments on behalf of the corporation).

Variables Measured for Obesity Issue Frames (RQ2 and H3)

To identify how food corporations are framing the obesity issue (RQ2) and to compare frequently adopted frames with those found in previous research (Darmon et

al., 2008) (H3), the presence and frequency of each of the five frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) and their corresponding sub frames were coded. To measure the “Global Initiatives to Help Address Rise in Obesity” frame (referred to as the Global Initiatives frame) four items were included: discussion of (1) global initiatives to help address rise in obesity (in general); (2) the corporation’s commitment to support healthier lifestyles; (3) the corporation’s commitment to making it easier for customers to eat better; and (4) steps the corporation plans to take to help battle obesity. To measure the Product Nutrition frame, five items were included: discussion of (1) product nutrition (in general); (2) the importance of product nutrition; (3) portion size; (4) nutritional characteristics of products; and (5) efforts to provide healthier options or improve nutritional value of current products. To measure the Marketing Practices frame, four items were included: discussion of (1) marketing practices (in general); (2) focus on the corporation’s intent to eliminate marketing in schools; (3) criteria the corporation will coordinate with the vending industry to decide which of the corporation’s products are most appropriate to offer in school vending machines; and (4) organizational guidelines for advertising and marketing practices to stress healthy lifestyles. To measure the Consumer Information frame, four items were included: discussion of (1) consumer information (in general); (2) nutrition labeling; (3) addition of nutrition information to product labels to help make consumer choices easier; and (4) health-related claims. To measure the Advocacy and Dialogue frame, three items were included: discussion of (1) advocacy and dialogue (in general); (2) the corporation’s efforts to advocate for public policy changes (primarily for

schools and communities); and (3) the corporation's efforts to increase dialogue about the obesity issue with key stakeholders.

In addition, to understand characteristics of stakeholders' interaction and responses to these frames (RQ2a-RQ2c), three items were created: (1) number of stakeholder comments; (2) number of stakeholder "likes," adapted from previous research (Kim et al., 2011); and (3) number of "shares," adapted through emergent coding. To examine which frame(s) stimulate(s) the dialogue with stakeholders most frequently (RQ2a), coders coded the number of stakeholder comments posted in response to a particular corporate message about the obesity issue. To understand which frame(s) stimulate(s) positive reaction from stakeholders most frequently (RQ2b), coders coded the number of "likes." To understand which frame(s) stimulate(s) stakeholders' willingness to share information with others most frequently (RQ2c), coders coded the number of "shares."

Coding Procedure & Data Analysis

Coding protocol was developed to accompany the coding sheet and to provide definitions and clarifications for each variable. The unit analysis for Coding Sheet A (general company information) was per company. The unit analysis for Coding Sheet B was one corporate Facebook message (wall post or responding comment). Coders coded the dichotomy of each item (e.g., 1 or 0) to maximize objective decisions when coding. Coders also coded the frequency of some items as appropriate, such as keywords, solutions used, and frames.

Two coders independently coded 20 percent ($n= 104$) of the total sample ($n= 514$) to determine intercoder reliability of the study. Every 5th message was selected to be coded in the intercoder reliability check. This method allowed the reliability sample to be

proportionally representative of all 10 corporations. SPSS macros for Krippendorff's alpha (Hayes, 2005) were used to determine reliability. According to Wimmer and Dominick (2011), Krippendorff's alpha is an "all-purpose reliability measure" that accounts for situations where there is more than one coder and can be used with several types of data scales (nominal, ordinal, interval or ratio) (p. 174). In the first-wave reliability check, coders independently coded 1.9% of the sample ($n= 10$) of the corporations' Facebook messages. Krippendorff's alpha reliabilities ranged from .81 to 1.0. Coders then independently coded 25 messages (5% of the sample) in a second-wave intercoder reliability check. In the second-wave, Krippendorff's alpha reliabilities ranged from .76 to 1.0. In the final wave, coders independently coded the remainder of the intercoder reliability sample, with Krippendorff's alpha reliabilities ranging from .72 to 1.0. According to Wimmer and Dominick (2011), a reliability coefficient of .70 or greater is acceptable. Therefore, intercoder reliability in this study was considered acceptable. Afterwards, the two coders discussed differences and agreed upon which data (from the 104 messages coded for intercoder reliability) would be incorporated into the final sample ($n= 514$). After determining that the intercoder reliability was acceptable and discussing differences, the remainder of the sample was coded.

CHAPTER 4 FINDINGS

Research Question 1

How are food corporations using social media (Facebook) in issues management regarding the obesity issue?

RQ1a: How often are food corporations addressing the obesity issue in comparison to overall number of messages (wall posts and responding comments)?

RQ1b: What kinds of issues management efforts do food corporations adopt when managing the obesity issue (e.g., information sharing or providing solutions for the obesity issue)?

RQ1c: What social media and interactivity tactics are food corporations using to increase two-way communication with stakeholders?

In addition to RQ1c, the following hypotheses were proposed, based on previous research findings:

H1: Stakeholders will be more likely to comment to the message if the corporation's message seeks feedback from stakeholders or if the corporation personalizes the message.

H2: Stakeholders are more likely to "like" the message if the corporation's message is personalized.

Background Information

Coding Sheet A was used to obtain general company information for each corporation in the sample. Information for the 10 companies was collected January 31, 2012 to prevent any new numbers from affecting the data, given the changing nature of Facebook. The results of the data collected from Coding Sheet A show that there are many stakeholders that have shown interest in connecting with the corporation, revealed by the number of stakeholders who "like" the company and the number who have "talked about" the company in the past seven days. Table 4-1 reflects the results for the number of stakeholders who have cumulatively "liked" the page, or "talked about" the company within the last seven days before January 31, 2012 (the date of recording).

For clarification, the number of “likes” for a company is a cumulative metric. As mentioned in the methodology section, the “talking about” metric is comprised of several aspects of stakeholder interaction with the company, including a stakeholder: (a) liking a page; (b) posting to a page’s wall; (c) liking, commenting or sharing a page post; (d) answering a question posted; (e) responding to an RSVP to an event; (f) mentioning the company page in a post; (g) photo-tagging a page; (h) liking or sharing a check-in deal; and (i) checking in at a place (when the company has listed a location on its Facebook wall). Again, this metric only reflects and reports the aforementioned interactions that occurred in the last seven days (Constine, 2011).

As indicated in the table, at the date of recording (January 31, 2012), Gatorade[®] had the most active stakeholders, with 4,557,719 stakeholders who “like” the company and 84,588 stakeholders who had “talked about” the brand within the past seven days. Of the companies within this sample, Kraft Foods Inc. reported the least number, with 34,195 “likes” and only 691 stakeholders who had “talked about” the company within the last seven days. However, in terms of percentage of stakeholders who are “talking about” the company in comparison to total number of stakeholders who “like” the company, Quaker[®] had the greatest percentage (4.7%) and Gatorade[®] had the lowest percentage (1.9%).

The results suggest that for the most part, brand corporations have more of a stakeholder following and more stakeholder interaction than do parent corporations. Stakeholders must physically click “like” to “like” the corporation’s page, or physically act in a certain way (based on the interactions listed above that trigger the “talked about” metric) to be included in the reported “talked about” number. This implies that these are

active stakeholders who have shown interest in connecting with the corporation via its Facebook page. The number of “likes” and stakeholders who have “talked about” the companies, even in the case of Kraft Foods Inc. (who had the lowest number reported) show that there is opportunity to directly communicate with a large population of active stakeholders through use of this medium.

RQ1a

RQ1a asked how often food corporations are addressing the obesity issue in comparison to overall number of posted messages (wall posts and responding comments). Table 4-2 offers the breakdown for each corporation, in terms of the activeness in posting (via wall posts) and commenting (via responding comments) about the obesity issue, compared to the overall number of posted messages (wall posts and responding comments).

Collectively across all 10 corporations, a total of 14,401 messages were posted (wall posts and responding comments). Based on the results, the corporations in the sample are actively using Facebook, with an average of 1,440 messages (wall posts and responding comments) per company posted over the course of one year. However, only about 1.9 percent of messages were wall posts that address the obesity issue, and only about 1.7 percent of messages were responding comments that address the obesity issue. The results do not suggest that corporations are communicating often with stakeholders about the obesity issue, with just an average of 51 messages per company, per year addressing the issue. This showed that only a small percentage of corporate messages (wall posts and responding comments) are being used to address the obesity issue when communicating with stakeholders on Facebook.

RQ1b

RQ1b asked what kinds of issues management efforts (e.g., information sharing and/or providing solutions) food corporations are adopting when managing the obesity issue on social media. By coding the frequency of keywords that were adapted from previous research (Verduin et al., 2005) and from emergent coding, results showed that there were some commonly used keywords. Of the keywords used, the term “healthy” or forms of the term were most frequently used (with a frequency of 191), followed by “nutrition” or forms of the term (with a frequency of 171), “portion size” or forms of the term (with a frequency of 130), and “low-calorie” or forms of the term (with a frequency of 110). It is interesting to note that the keyword “obesity” or forms of the term were only used twice throughout the 514 messages that were coded. Previous research (Verduin et al., 2005) suggested companies may use the following terms: “low-calorie,” “unsalted,” “no trans-fat,” or “cholesterol-free” when addressing the obesity issue. The results of this study revealed that these terms, with the exception of “low-calorie” are not necessarily the most commonly used terms in social media messaging. Other terms, such as “weight/weight management” and others listed above were used more often when communicating directly to stakeholders in Facebook messaging.

While 514 messages were coded based on presence of these commonly-used obesity issue keywords in other media, results showed that only 93% of messages ($n=478$) in the sample used these keywords and shared information with stakeholders on Facebook. The remaining seven percent of corporate messages in the total sample ($n=36$) used one or multiple keywords, but the message itself did not necessarily share information about the obesity issue. Some examples of these messages include: “What is your favorite way to stay healthy?;” “Do you incorporate exercise into your weight

management program?” “It’s chilly outside! What’s a workout you’re into now that it’s winter?” Often, the corporation’s message served as a prompt to encourage dialogue about the obesity issue among stakeholders. It was observed that in cases with messages like these, the corporation’s message itself did not necessarily share information. Rather, stakeholders’ responses often served to share information. However, this study only focused on corporate messages and messages from stakeholders were not coded. This implies that at least seven percent of corporate messages in this sample were used to prompt conversation about the issue, but did not necessarily share information.

One hundred and fifty seven messages (30.5%) in the sample talked about sports, exercise or staying in shape and terms related to this item (fitness, sports, staying in shape). Collectively, these terms were used 334 times throughout the 514 messages. Thirty nine messages in the sample (7.6%) shared information through healthy recipes, and 207 messages (40.3%) in the sample shared information through mentioning another source or a website.

Four hundred twelve messages (80.2%) of the total sample provided solutions for the obesity issue. Of those solutions that were communicated, 34 messages (6.6%) in the total sample talked about collaborating with nonprofits, 29 messages (5.6%) mentioned collaboration with government, 22 messages (4.3%) discussed collaboration with schools, 8 messages (1.6%) talked about collaborating with the medical community, and 319 messages (62.1%) gave stakeholders nutritional information to empower them to make the right choices.

To determine any relationship between messages that shared information and messages that provided solutions, a correlation analysis was performed. The analysis showed a significant positive relationship between messages that share information and messages that provide at least one solution ($r = .327, p < .01$). The result suggests that when messages share information, they are likely to include a solution. Consequently, when a message provides a solution, it will often share some information.

To compare the effect of the solutions adapted on the number of comments, “likes” and “shares,” a one-way ANOVA was conducted. Messages tested included those with solutions that mentioned (1) collaborating with nonprofits (a solution found through emergent coding); (2) collaborating with government; (3) collaborating with schools; (4) collaborating with the medical community; and (5) providing nutritional information to empower stakeholders to make the right choices (solutions adapted from previous research by Verduin et al., 2005). Messages providing multiple solutions were excluded from this ANOVA test to remove the uncertainty of which solution may have more effect on the number of comments, “likes” and “shares” than the other. For example, if two solutions were utilized in one message, it may not be evident as to which solution influenced the dependent variable more than the other. Therefore, the messages in this ANOVA tested only those solutions messages with a unique solution mentioned ($n = 347$).

Results of the ANOVA showed that among the five solutions used, there were no significant differences in the number of stakeholder comments ($F(4,343) = .953, p > .05$), the number of “likes” ($F(4,343), p > .05$), and the number of “shares” ($F(4,343) =$

.025, $p > 0.5$). Therefore, it cannot be concluded that the solution used has a significant effect on the number of stakeholder comments, “likes” or “shares.”

RQ1c

RQ1c asked about the social media and interactivity tactics that food corporations are using to increase two-way communication with stakeholders. As shown in Figure 4-1, in the sample data, of the content types used for wall posts ($n= 268$), text-only wall posts were most frequently used (22%, $n= 113$), followed by text plus a photo (14.4%, $n= 74$), text plus the corporation’s logo (8%, $n= 41$), text plus a video (5.3%, $n= 27$), and lastly, text plus a poll (2.5%, $n= 13$). Of the messages in the total sample, responding comments were used in 246 messages (47.9% of the sample) to discuss the obesity issue.

In regards to the interactivity elements used, 144 messages (28% of the sample) sought feedback from stakeholders, 192 messages (37.4% of the sample) prompted action from stakeholders, and six messages (1.2% of the sample) prompted stakeholders to click “like.” In assessing how corporations personalize the communication with stakeholders, it was found that 95 messages (18.5% of the sample) asked stakeholders personal questions. The majority of messages were posted by the corporation’s official Facebook account ($n= 497$, 96.7% of the sample), whereas 13 messages (2.5% of the sample) were using an individual voice, with Kraft Foods Inc. being the only corporation that allows individuals to post answers on behalf of the corporation. Figures 4-2 and 4-3 show the interactivity and personalization elements used in corporate messaging.

The results suggest that corporations are using wall posts (text-only, text plus a poll, photo, logo picture or video) more often than they are using responding comments

to address the obesity issue. In terms of interactivity elements, food corporations are frequently using messages that prompt stakeholders to act in some way (e.g., “Upload a photo,” “Learn more here,” “Try this recipe”). In terms of personalization techniques, corporations do use messages that ask stakeholders personal questions. However, regarding the entity from which the official corporate messages are posted, not many corporations are using individual voices. Rather, the overwhelming majority of messages are posted via the corporation’s official Facebook account.

Correlation analyses were performed to test H1 and H2 and to examine the relationship between the interactivity variables and stakeholders’ participation in dialogue (comments), positive reaction (“likes”) and willingness to share with others (“shares,” only available in cases when the corporate message was a wall post).

Hypothesis 1

Stakeholders will be more likely to comment to the message if the corporation’s message seeks feedback from stakeholders or if the corporation personalizes the message. (Supported)

Results of a correlation analysis (shown in Table 4-3) suggest that there is a significant positive relationship between a message that seeks feedback and the number of stakeholder comments ($r = .225, p < .01$). The results also suggest a significant positive relationship between messages that ask stakeholders a personal question and the number of stakeholder comments ($r = .223, p < .01$). There were no other significant relationships (positive or negative) found relating to messages that sought action ($r = -.026, p > .01$), messages that prompted stakeholders to click “like” ($r = .009, p > .01$), messages that used an official voice ($r = .040, p > .01$), or messages that used an individual voice ($r = -.035, p > .01$), and the number of stakeholder comments.

The finding is consistent with previous research (Kim et al., 2011) regarding the correlation of interactivity features with the number of comments.

Hypothesis 2

Stakeholders are more likely to “like” the message if the corporation’s message is personalized. (Supported)

Results of a correlation analysis (shown in Table 4-4) revealed a significant positive relationship between the messages that sought feedback/comments from stakeholders and the number of “likes” ($r = .200, p < .01$), and the messages that asked personal questions and the number of “likes” ($r = .139, p < .01$). This is consistent with the findings of previous research (Kim et al., 2011). Further, results showed that a significant positive relationship exists between a corporate message that prompts stakeholders to click “like” and the number of stakeholders who “like” the message ($r = .201, p < .01$). There was no significant relationship between the number of “likes” and messages that sought action ($r = .015, p > .01$), messages that used an official voice ($r = .084, p > .01$) or messages that used an individual voice ($r = -.076, p > .01$).

To further investigate RQ1c, a correlation analysis was performed to examine the relationship between the number of “shares” and the interactivity features studied. The results showed no significant relationships between the number of “shares” and messages that seek feedback ($r = .078, p > .01$), messages that seek action ($r = -.011, p > .01$), messages that prompt shareholders to click “like” ($r = -.003, p > .01$), messages that ask personal questions ($r = -.003, p > .01$), messages that use an official voice ($r = .017, p > .01$), or messages that use an individual voice ($r = -.015, p > .01$).

The findings of RQ1c (H1 and H2) show that stakeholders are more likely to comment on a message if the corporation (1) seeks feedback from stakeholders, and/or

(2) asks stakeholders personal questions. The results also showed that stakeholders are more likely to “like” a message if the corporation (1) prompts stakeholders to click “like,” (2) seeks feedback from stakeholders, and/or (3) asks stakeholders personal questions.

Research Question 2

How are food corporations framing the obesity issue?

To answer this, the researcher tested the following hypotheses and addressed the following research questions:

H3: The obesity issue frames used by food corporations in traditional media (found by Darmon et al. (2008)) will be similar to those frequently used in social media messaging.

H3a: The Product Nutrition frame will be the most frequently used obesity issue frame on social media.

H3b: The Marketing Practices frame will be the second most frequently used obesity issue frame on social media.

H3c: The Global Initiatives frame will be the third most frequently used obesity issue frame on social media.

In addition, the following RQs were investigated:

RQ2a: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used, are there statistically significant differences in terms of dialogue participation from stakeholders?

RQ2b: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used, are there statistically significant differences in terms of positive reaction from stakeholders?

RQ2c: Among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue) being used, are there statistically significant differences in terms of stakeholders’ willingness to share the message with others?

As per Coding Sheet B, only the frames that were found in previous research were coded. RQ2 asked how food corporations are framing the obesity issue on social media.

A total of 80.5 percent ($n= 414$) of the messages in the sample used one or more of the

previously found frames, whereas 19.5 percent ($n= 100$) of the messages included keywords and met sample criteria, but did not have a specific frame associated with it. Of those that matched with frames from previous research, the Product Nutrition frame was used in the most messages ($n= 457$, 88.9% of messages in the sample), followed by the Global Initiatives frame ($n= 212$, 41.2% of messages in the sample), and the Advocacy and Dialogue frame ($n= 94$, 18.3% of messages in the sample). The Consumer Information frame ($n= 18$, 3.5% of messages in the sample) and the Marketing Practices frame ($n= 0$, 0% of messages in the sample) were the least used. Table 4-5 shows the breakdown of how many messages used each frame and sub frame, and the overall frequency of each frame and sub frame.

Hypothesis 3

The obesity issue frames used by food corporations in traditional media (found by Darmon et al., (2008)) will be similar to those frequently used in social media messaging. (Partially Supported)

The results are further explained below under hypothesis subheads (H3a-H3c). Some elements of this hypothesis were supported while some were rejected.

H3a

The Product Nutrition frame will be the most frequently used obesity issue frame on social media. (Supported)

The results of this study were consistent with previous research on traditional media messaging (Darmon et al., 2008), regarding the popular use of the Product Nutrition frame. Results showed that the Product Nutrition frame is the most commonly used in social media messages as well. This frame was used in 457 messages (88.9%

of the messages in the sample). Regarding overall frequency of use, a Product Nutrition frame or sub frame was mentioned 815 times throughout 457 messages.

H3b

The Marketing Practices frame will be the second most frequently used obesity issue frame on social media. (Not Supported)

The results of the use of the Marketing Practices frame were inconsistent with previous research. Among 514 messages, this frame was not used at all when addressing the obesity issue. Darmon et al. (2008) research on the popularity of the Marketing Practices frame in traditional media revealed that it was the second most commonly used frame.

H3c

The Global Initiatives frame will be the third most frequently used obesity issue frame on social media. (Partially Supported)

The results of this study showed that the Global Initiatives frame was among the top obesity issue frames most frequently used. It only differed from previous research (Darmon et al., 2008) in that it was the second most commonly used, instead of the third. It was used in 212 messages (41.2% of the messages in the sample). Regarding overall frequency of use, a Global Initiatives frame or sub frame was mentioned 227 times throughout 212 messages.

The help answer RQ2 (How food corporations are framing the obesity issue), a chi-square analysis was performed to examine any differences between parent corporations and brand corporations in terms of frame used (Global Initiatives frame, Product Nutrition frame, and Advocacy and Dialogue frame). For this analysis, the Marketing Practices and Consumer Information frames were dropped due to the inability

to meet the chi-square test criteria of having an expected count of at least five (Wimmer & Dominick, 2011).

As shown in Table 4-6, results revealed that for the Global Initiatives frame, the relationship between these variables was significant, $\chi^2 (1) = 39.561, p < .05$. Brand corporations were more likely to use the Global Initiatives frame in obesity issue messages on social media than were parent corporations. Results also showed that for the Product Nutrition frame, the relationship between the variables was also significant, $\chi^2 (1) = 11.030, p < .05$. Brand corporations were more likely to use the Product Nutrition frame than were parent corporations. The results of the chi-square analysis showed a significant relationship between the corporation type and use of the Advocacy and Dialogue frame ($\chi^2 (1) = 5.289, p < .05$). Brand corporations were also more likely to use the Advocacy and Dialogue frame than were parent corporations.

The results revealed that in the case of this study, brand corporations are more likely than parent corporations to use the Global Initiatives, Product Nutrition and Advocacy and Dialogue frames. No conclusions could be made regarding differences between corporation types (parent corporation or brand corporation) in terms of use of the Marketing Practices or Consumer Information frames.

RQ2a, RQ2b, RQ2c

The remaining research questions (RQ2a-RQ2c) asked if there are statistically significant differences among the five obesity issue frames (Global Initiatives, Product Nutrition, Marketing Practices, Consumer Information, and Advocacy and Dialogue), in terms of (a) dialogue participation from stakeholders, (b) positive reaction from stakeholders, and (c) stakeholders' willingness to share information with others. To answer RQ2a-RQ2c, Facebook messages with at least one frame were considered

from the analysis. From that pool, those with more than one frame were then eliminated, due to the uncertainty of which frame may have the dominant effect on number of comments, “likes,” and “shares” over the other frame(s). It is also noted that only Facebook wall posts were included in the analysis for “shares,” as Facebook does not give stakeholders an option to “share” a responding comment message.

After compiling those that included only one major frame ($n= 372$), ANOVAs were conducted to examine the relationships among the five frames employed and the number of comments, “likes” and “shares.” In regards to RQ2a, results showed no significant differences in the numbers of comments ($F(3, 368) = .787, p > .05$) based on frame use. In regards to RQ2b, results revealed that number of “likes” was subjected to an analysis of variance, using frame as an independent variable. The analysis showed a significant main effect of frame ($F(3, 368) = 8.171, p < .05$). A post hoc test was then conducted, and the Scheffe post hoc test was chosen since it is considered the most conservative method (Hilton & Armstrong, 2006). Post hoc analysis indicated that the mean score for Global Initiatives frame ($M = 14.19, SD = 33.11$) was significantly different than the mean score of the Product Nutrition frame ($M= 47.24, SD= 98.63$) and Advocacy and Dialogue frame ($M= 27, SD= 75.03$) in the number of “likes.” This indicates that the Product Nutrition frame is more effective than the Advocacy and Dialogue frame or the Global Initiatives frame in terms of generating “likes.” In regards to RQ2c, the results showed no significant differences in the number of “shares” ($F(3, 368) = .082, p > .05$) based on frame use. Table 4-7 reflects the results of the ANOVA test.

The results (shown in Table 4-7) suggest that the use of specific frames can have an effect on the number of “likes” (RQ2b). Specifically, these results suggest that when the Product Nutrition frame, the Advocacy and Dialogue frame, or the Global Initiatives frame is used, there are more “likes.” However, it should be noted that in the case of this study, frame use did not have a significant effect on number of comments (RQ2a) or on number of “shares” (RQ2c).

To further investigate relationships between frame use and the number of stakeholder comments, “likes” and “shares,” correlation analyses were run for all frames without dropping any cases that presented more than one frame, but excluding messages that did not use any frames. The Marketing Practices frame was dropped from this analysis, as there were zero results in terms of frame use. Results of these correlation analyses are shown in Table 4-8.

Results of the correlation analysis showed that there was a significant positive relationship between the number of comments and the Product Nutrition frame ($r = .116$, $p < .05$), and a significant negative relationship between the number of stakeholder comments and the Global Initiatives frame ($r = -.164$, $p < .01$). Results showed no significant relationships between the number of comments and the Consumer Information frame ($r = -.046$, $p > .05$), and the Advocacy and Dialogue frame ($r = .048$, $p > .05$).

Results of the correlation analysis also revealed that there was a significant positive relationship between the number of “likes” and the Product Nutrition frame ($r = .103$, $p < .05$) and the Advocacy and Dialogue frame ($r = .143$, $p < .01$). Results also showed a significant negative relationship between the number of “likes” and the

presence of a Global Initiatives frame ($r = -.206, p < .01$). Results did not show a significant relationship between the number of “likes” and the Consumer Information frame ($r = -.064, p > .05$).

Results also suggested that there were no significant relationships between the number of “shares” and the frames used. Results showed a non-significant relationship between the number of “shares” and the Global Initiatives frame ($r = -.007, p > .05$), the Product Nutrition frame ($r = .029, p > .05$), the Consumer Information frame ($r = -.005, p > .05$), and the Advocacy and Dialogue frame ($r = -.052, p > .05$).

Results from the correlation analyses show that when examining the direct relationship between the use of specific frames and the number of stakeholder comments, “likes,” and “shares,” the Product Nutrition frame is most effective. In addition, the Advocacy and Dialogue frame is also likely to generate more stakeholder “likes.” The correlation analysis did show that the Global Initiatives frame should not be used often, as results indicate that the use of this frame does not generate more comments or “likes.”

The ANOVA and correlation analyses show that the Product Nutrition frame is the best frame for practitioners to use to generate more dialogue with and positive reaction from stakeholders. Both analyses also show that the Advocacy and Dialogue frame is the second most effective, whereas the Global Initiatives frame and Consumer Information frame are not recommended if practitioners are seeking increased dialogue and positive reaction.

Table 4-1. Number of stakeholders who “like” the corporation (cumulative metric) and who have “talked about” the corporation (from January 25-31, 2012)

Corporation (P) Parent Corp. (B) Brand Corp.	“Likes” for corporation’s page (cumulative)	Number of stakeholders who “talked about” the corporation (from Jan. 25-31, 2012)	Percent of stakeholders who “talked about” the corporation
PepsiCo Inc. (P)	47,392	2,027	4.2%
Quaker [®] (B)	656,658	30,860	4.7%
Gatorade [®] (B)	4,557,719	84,588	1.9%
Tropicana [®] (B)	177,977	4,214	2.4%
Kraft Foods Inc. (P)	34,195	691	2%
Jell-O [®] (B)	293,590	7,720	2.6%
Crystal Light [®] (B)	418,122	12,152	2.9%
Kellogg Company (P)	278,343	6,781	2.4%
Special K [®] (B)	516,798	14,513	2.8%
Frosted Flakes [®] (B)	126,910	10,642	8.4%

Table 4-2. Corporate activity in addressing the obesity issue (wall posts and responding comments) in comparison to overall number of corporate posted messages from Jan. 1, 2011-Dec. 31, 2011

Corporation (P) Parent Corp. (B) Brand Corp.	Total number of messages (wall posts and responding comments)	Number of wall posts addressing obesity issue	Percent of total messages	Number of responding comments addressing obesity issue	Percent of total messages	Combined Percent addressing obesity issue
PepsiCo Inc. (P)	4,664	22	.5%	16	.3%	.8%
Quaker® (B)	1,296	28	2.2%	16	1.2%	3.4%
Gatorade® (B)	804	31	3.9%	18	2.2%	6.1%
Tropicana® (B)	466	35	7.5%	8	1.7%	9.2%
Kraft Foods Inc. (P)	802	28	3.5%	12	1.5%	5%
Jell-O® (B)	1,334	14	1%	15	1.1%	2.1%
Crystal Light® (B)	3,091	22	.7%	48	1.6%	2.3%
Kellogg Company (P)	658	34	5.2%	5	.8%	6%
Special K® (B)	1,088	32	2.9%	104	9.6%	12.5%
Frosted Flakes® (B)	198	22	11.1%	4	2%	13.1%
Totals	14,401	268	1.9%	246	1.7%	3.6%

Table 4-3. Correlation analysis for relationship between interactivity and personalization elements and number of stakeholder comments

		Interactivity elements		Personalization elements			
		Seek feedback/ comments from stakeholders	Prompt stakeholders to act in some way	Prompt stakeholders to click "like"	Ask stakeholders personal questions	Use official voice (post via corp. FB)	Use individual voice (post via indiv. FB)
# of stakeholder comments	Pearson correlation	.225**	-.026	.009	.223**	.040	-.035

Note: *Significant at the $p < .05$ level. **Significant at the $p < .01$ level.

Table 4-4. Correlation analysis for relationship between interactivity and personalization elements and the number of stakeholder likes

		Interactivity elements		Personalization elements			
		Seek feedback/ comments from stakeholders	Prompt stakeholders to act in some way	Prompt stakeholders to click "like"	Ask stakeholders personal questions	Use official voice (post via corp. FB)	Use individual (post via indiv. FB)
# of stakeholder "likes"	Pearson correlation	.200**	.015	.201**	.139**	.084	-.076

Note: *Significant at the $p < .05$ level. **Significant at the $p < .01$ level.

Table 4-5. Frequently used obesity issue frames and sub frames on social media

Frame and sub frames	# Messages using the frame/sub frame	Frequency of frame or sub frame use
Global initiatives to address rise in obesity	27	30
Commitment to support healthier lifestyles	111	117
Commitment to making it easier to eat better	50	52
Steps/plans to help battle obesity	24	28
Product nutrition	212	337
Portion/serving size	27	118
Nutritional characteristics of products	178	315
Efforts to provide healthier options	27	29
Improving nutritional value of current products	13	16
Marketing practices	0	0
Eliminating marketing in schools	0	0
Coordination with school vending industry	0	0
Mktg/adv to stress healthy/active lifestyles	0	0
Consumer information	8	8
Discuss nutrition labeling	10	12
Adding nutritional info to product labels	0	0
Discuss health-related claims	0	0
Advocacy and dialogue	47	48
Actions to advocate for public policy changes	2	2
Increase dialogue about obesity issue	45	47

Table 4-6. Cross tabulation of corporate type (parent or brand) and frame use

	Times used by corporations	Times used by brand corporations	X ²	P
Global initiatives frame	63	93	39.561	.000*
Product nutrition frame	40	205	11.030	.001*
Advocacy and dialogue frame	17	30	5.289	.021*

Note: *Significant at the $p < .05$ level.

Table 4-7. One-way ANOVA for number of stakeholder comments, “likes,” and “shares” by frame used in message

	Df	Mean square	F	P
# of stakeholder comments	3	15518.654	.787	.502
# of stakeholder “likes”	3	53122.669	8.171	.000*
# of “shares”	3	2.802	.082	.970

Note: *Significant at the $p < .05$ level.

Table 4-8. Correlation analysis for relationship between frames used and number of stakeholder comments and “likes”

		Global initiatives frame	Product nutrition frame	Consumer information frame	Advocacy and dialogue frame
# of stakeholder comments	Pearson correlation	-.164**	.116*	-.046	.048
# of stakeholder “likes”	Pearson correlation	-.206**	.103*	-.064	.143**

Note: *Significant at the $p < .05$ level. **Significant at the $p < .01$ level.

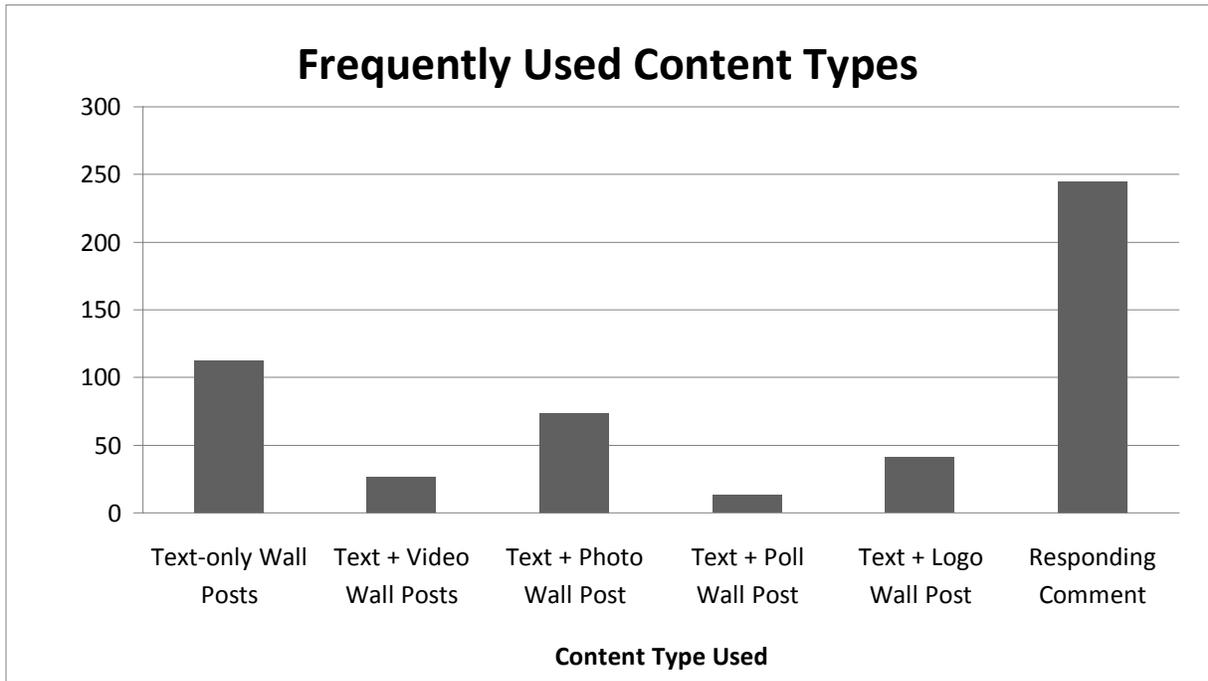


Figure 4-1. Content types used in messages that addressed obesity issue

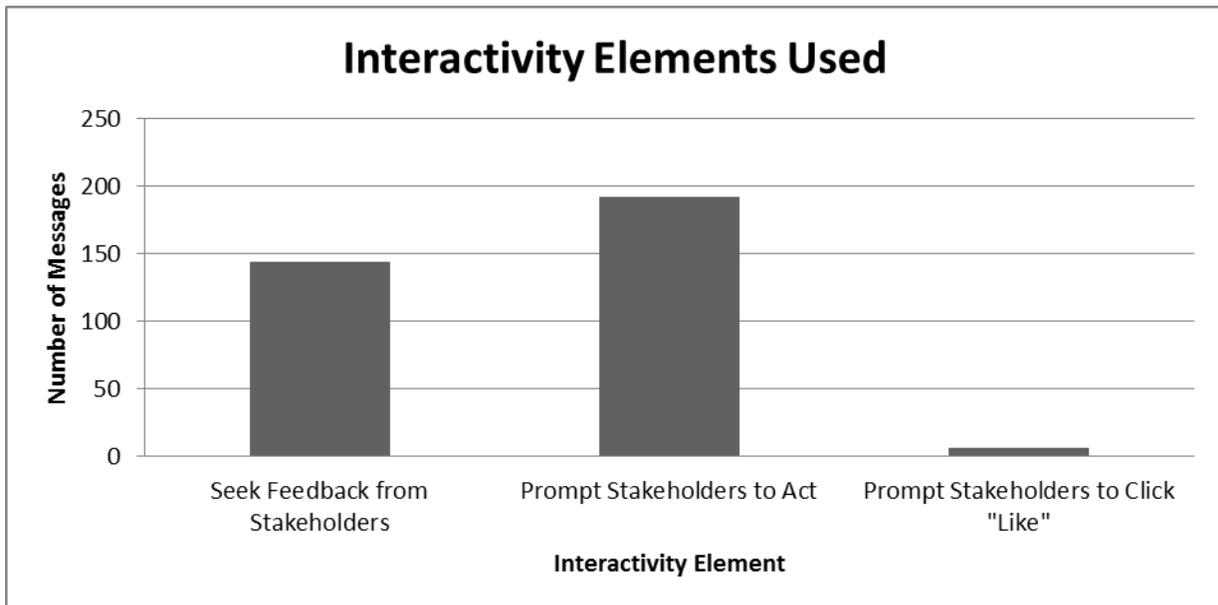


Figure 4-2. Interactivity elements frequently used in messages that addressed obesity issue

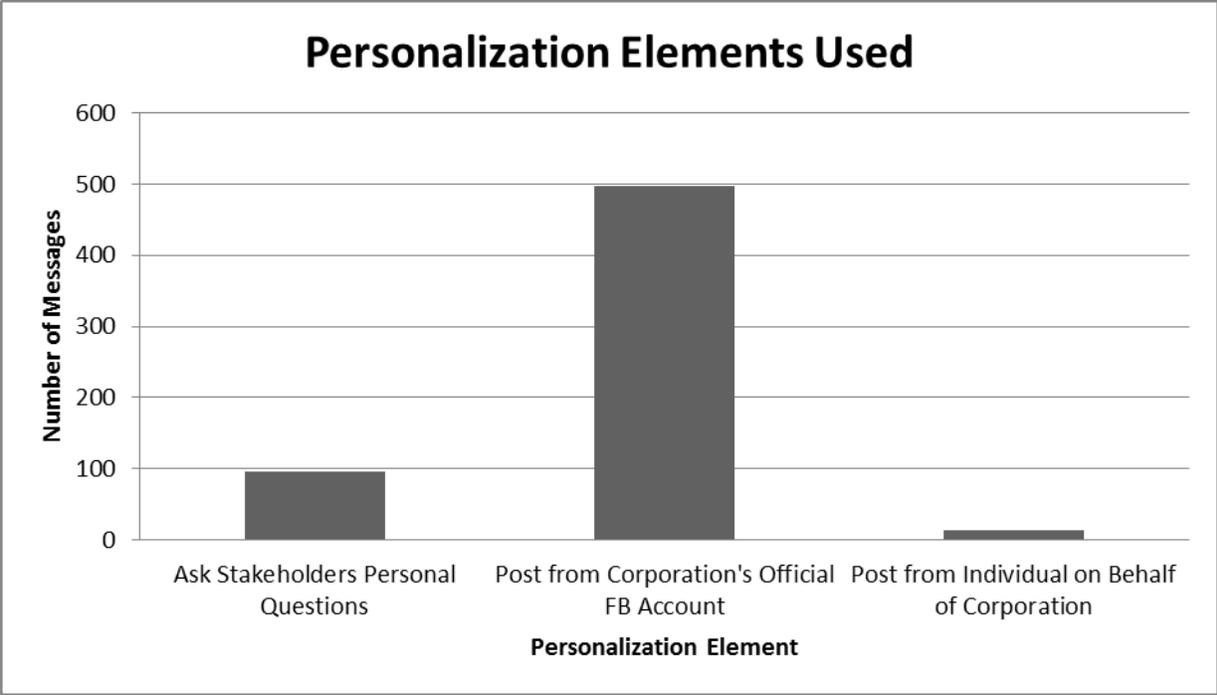


Figure 4-3. Personalization elements frequently used in messages that addressed obesity issue

CHAPTER 5 DISCUSSION

The purpose of this research was to report the current status of how food industry corporations are managing and framing the obesity issue on social media. The results of this study are intended to contribute to the development of current literature on issues management and the growing literature on social media. In addition, this study is also intended to provide some benchmark for other food corporations that are not on Facebook, not actively using Facebook, or not using this medium to maximize issues management efforts in regards to the obesity issue.

In the sampling procedure, it became evident that many corporations among the *Fortune* 500 companies were not active Facebook users. Out of 14 parent corporations in the food consumer products industry on the *Fortune* 500 list, only nine corporations had an official Facebook page, and only three corporations had posted 25 messages or more in one calendar year (2011) that addressed the obesity issue. This study's findings can provide those corporations not using Facebook or not fully using this medium with strategies and tactics for maximizing issues management and two-way communication efforts with stakeholders on Facebook.

Issues Management

In order to provide this benchmark, a goal of this research study was to first understand how food corporations are using social media (Facebook) in issues management, specifically regarding the obesity issue. Previous research explained that Facebook could be an important tool for corporations to use to communicate directly with stakeholders, as this medium is controllable by the corporation and as there are no gatekeepers. Based on the results of this study, the corporations in the sample are

actively using Facebook, but are not using this medium to communicate frequently about the obesity issue.

Messages that included commonly used keywords when addressing the obesity issue were included in the sample. The majority of messages shared information with stakeholders. However, there were some that used the keywords, but did not necessarily share information about the obesity issue. Often, messages in these cases came in the form of questions or conversation prompts for stakeholders to engage in dialogue about the obesity issue among each other. In many of these cases, stakeholders' responses served as information sharing mechanisms, and corporate messages only served to facilitate or prompt this among stakeholders.

Most of the messages both shared information with stakeholders and provided at least one solution to the obesity issue. However, not all of the messages that shared information provided a solution. The results show that there is an opportunity for corporations to maximize issues management efforts by providing solutions (either collaborating with entities or providing stakeholders with nutritional information to empower them) with information-sharing messages.

Based on the results of this study, it cannot be concluded that any one solution (collaborating with nonprofits, collaborating with government, collaborating with schools, collaborating with the medical community, or providing nutritional information to empower stakeholders) generates more activity (dialogue, positive reaction, or willingness to share with others) among stakeholders. However, as an important component of issues management, practitioners should show initiative by providing

solutions alongside information-sharing efforts (Jones & Chase, 1979). This research showed that food corporations are not practicing this tactic as often as they should be.

Two-way Communication

This research also examined the use of social media to increase two-way communication with stakeholders. With the opportunities that connecting directly with stakeholders can provide, this aspect of this research can be beneficial to nearly any organization, across different industries and fields. Results showed that corporations are mostly using wall posts to address the obesity issue. In addition, they are often using messages that prompt stakeholders to act in some way. However, this interactivity element does not necessarily generate the most stakeholder activity in terms of dialogue, positive reaction and willingness to share with other stakeholders, when compared to other interactivity elements.

The results of this study were consistent with the findings of previous research (Kim et al., 2011), in that when corporations use messages that seek feedback from stakeholders or messages that ask stakeholders personal questions, stakeholders are more likely to interact with the company via comments. Another finding that is consistent with previous research is that stakeholders are more likely to “like” the message if it is personalized. Further, this research examined a new interactivity prompt, in which corporations ask stakeholders to “like.” This interactivity element is also likely to generate more stakeholder “likes.”

In addition, while Kraft Foods Inc. allows individuals to post messages on behalf of the corporation, the majority of corporate messages are posted via the corporation’s official Facebook account. The results of this study showed that there were no

significant relationships between voice used (e.g., official vs. individual) and the generation of more stakeholder comments, “likes,” or “shares.”

Framing

Another goal of this research was to understand how food corporations are framing the obesity issue when communicating directly with stakeholders on social media. Previous research (Darmon et al., 2008) revealed that the Product Nutrition frame and Global Initiatives frame were among the most frequently used obesity issue frames Kraft Foods Inc. used when communicating in traditional media. This study also revealed these obesity issue frames to be frequently used by food corporations in Facebook messaging.

The results of this study did reveal a major difference in terms of corporations' use of the Marketing Practices frame. Previous research (Darmon et al., 2008) listed the Marketing Practices frame as the second most frequently used obesity issue frame by Kraft Foods Inc. when communicating via traditional media. However, when examining the obesity issue frames that food corporations (including Kraft Foods Inc.) use in Facebook messaging, no messages included a Marketing Practices frame. In theory, the frames found to be used in traditional media messaging should be similar to that of social media messaging. The lack of use of this frame, which was the second most popular in traditional media messaging, shows another opportunity for food corporations communicating on Facebook. If the frame were particularly interesting and newsworthy when communicating to traditional media (an important stakeholder group), then perhaps it would be interesting and helpful for practitioners to communicate this frame directly to stakeholders on Facebook.

Further, this research showed that the Global Initiatives frame, the Product Nutrition frame and the Advocacy and Dialogue frame were used in more messages by brand corporations than by parent corporations. There was not enough evidence to conclude whether parent or brand corporations were more likely to use a Marketing Practices frame or a Consumer Information frame. The results of this study showed that for the most part, with the exception of Kraft Foods Inc. and its brands (Jell-O® and Crystal Light®), brands show more activity as far as addressing the obesity issue in comparison to overall number of posts. This could be a reason why brands are more actively using these particular obesity issue frames when compared to parent corporations.

This study also revealed that the use of specific frames may influence the number of stakeholder “likes” (positive reaction) more than the use of other frames. Results showed that of the five frames, the Product Nutrition frame, Advocacy and Dialogue frame, and Global Initiatives frame may result in more positive reaction than the Consumer Information frame. The Marketing Practices frame was not considered in this analysis, due to lack of messages including this frame. However, when examining the direct relationship, results showed that the Product Nutrition frame is more likely to be effective in generating dialogue with and positive reaction from stakeholders than any other frame. While not as effective as the Product Nutrition frame, the Advocacy and Dialogue frame is also likely to generate positive reaction. Results showed that the Global Initiatives frame did not seem to be as effective in generating dialogue with stakeholders or positive reaction from stakeholders. Regarding the likelihood of stakeholders to share the message with others, results showed non-significant

relationships, and therefore, no conclusions could be made in terms of which frames generate the most “shares.”

Theoretical and Practical Implications

The findings of this study present several implications. This study offers theoretical implications based on the results of hypothesis testing and the answering of research questions. Thus, it further contributes to the literature on issues management and social media. Practical implications are provided for corporations that are not using Facebook or that are not actively using this medium, as this research provides evidence for opportunities that Facebook provides them in terms of strategic issues management, two-way communication and framing efforts.

Considering the number of stakeholders who have shown interest in connecting with corporations, indicated by the large quantity of stakeholders who have “liked” the corporations and have “talked about” the corporations, there is a tremendous opportunity for corporations in terms of using this medium for issues management. Practitioners should recognize the potential for direct communication with such large groups of active stakeholders and understand that it is an opportunity to build relationships with stakeholders. Practitioners can use some of the following tactics to maximize communication efforts.

Social media offers opportunities for two-way communication with stakeholders. The results of this study imply that corporations can be involved in the discussion of issues in social media, but may use different tactics (like prompting stakeholders to engage in conversation with each other) to involve them in discussion about the issue. This finding presents interesting theoretical implications, as the nature of how corporations communicate and approach issues via social media may be fundamentally

different than the nature of how corporations communicate in traditional media. Because social media allows for two-way communication, corporations can pose questions and act as facilitators for discussion of issues among stakeholders. This is not an opportunity found in traditional media, as it is more one-way in nature.

Results showed that while the corporations in this sample are active on Facebook, they are only dedicating a small percentage of their messages to communicate about the obesity issue with stakeholders. As tools for issues management, effective frames (discussed in more detail later) can be used to increase issues management efforts. While many messages in the sample share information, practitioners should provide solutions alongside all messages that share information.

The results of this study were consistent with previous research regarding some of the interactivity and personalization elements. Based on the results, practitioners can increase dialogue with stakeholders by using messages that seek feedback and comments from stakeholders and by using messages that ask stakeholders personal questions. In addition, to increase positive reaction from stakeholders, practitioners should use messages that ask stakeholders personal questions and messages that prompt stakeholders to “like” the message itself. Results show that there is no significant relationship between the voice used (official or individual) and the generation of stakeholder comments, “likes,” and “shares.” Therefore, in terms of generating this activity, the voice from which the message originates is less important to apply than are other, more effective, interactivity tactics.

This study was consistent with previous research in that corporations often use the Product Nutrition and Global Initiatives frames in obesity issue messaging. However,

this study found that the Marketing Practices frame is fairly unused in social media. Theoretically, the frames found in traditional media should be consistent with the frames often found in social media. This provides theoretical implications in that the tactics used to frame certain issues may differ across media platforms.

As tools for issues management, frames can be used to influence stakeholders through second-level agenda-setting (Kioussis, Popescu, & Mitrook, 2007). The results of this study offer suggestions for practitioners. In terms of framing, practitioners should use messages that include a Product Nutrition frame, as it tends to generate the most dialogue with stakeholders and the most positive reaction from stakeholders. The Advocacy and Dialogue frame can also be used, as it tends to be effective in generating positive reaction among stakeholders. Contrastingly, practitioners should avoid using a Global Initiatives frame if the objective is to encourage dialogue from stakeholders or to gain positive reaction. Results showed that when used, this frame is not likely to generate these results.

This study addresses the unique relationship between issues management and framing on Facebook, and can therefore provide some benchmark for other food corporations. Understanding which interactivity and personalization components and which frames will generate more communication with stakeholders can contribute to the development of scholarship in these fields and can help practitioners decide which tactics are best to use when communicating directly with stakeholders about the obesity issue on Facebook.

Limitations

Findings and lessons learned from this study can be helpful to scholars and practitioners. However, there are some limitations. The data were limited to those from

the January through December 2011 time frame. Also, this study only investigated the issues management and framing techniques used on Facebook, and did not examine other social media platforms. Therefore, it cannot be generalized to all of social media, as the metrics and features of Facebook differ greatly from that of Twitter, blogs and other social media platforms.

Also, the sample was limited by the number and types of corporations examined. Based on the explained criteria, only three parent companies and seven brand corporations were examined in this study. Parent company food corporations were chosen from the food consumer products category of the *Fortune* 500 list. This study did not investigate the issues management and framing techniques used by other food industry corporations like fast food companies, for example. Based on research about the obesity issue discourse, there are several types of food corporations that have been criticized for contributing to the obesity issue, such as the fast food industry (Zieff & Veri, 2009). Other types of corporations (for example, the fast food or dining and restaurant industries) may yield different results.

Because this unique aspect (framing and managing the obesity issue on social media) has not previously been studied, this research focused mostly on items found through emergent coding to determine which messages will be considered for the sample. Previous research had been done on recognizing obesity issue themes, keywords and frames found through traditional media. Because there were not many messages that clearly used the word “obesity,” social media messages appeared to address the obesity issue more discretely. While keywords from previous research and

from emergent coding were incorporated, there could be some items or keywords that were not accounted for in this particular study.

Another limitation is that this content analysis only examined the frames found in previous research (based on Darmon et al., 2008). Previous research was helpful in defining frames that are frequently found in traditional media; however, there may be other frames that could be examined outside of the findings of previous research.

Future Research

The purpose of this research was to expand on current pre-crisis (issues management) literature and the growing literature on social media by examining the relationship between issues management and framing on Facebook, a phenomenon that has not been previously studied. As exploratory research, this study raises several opportunities for future research.

One interesting component that can be expanded upon in future research is the difference in the wording of frames between traditional media messaging and social media messaging. It was observed that there are limitations of social media in terms of message length. While Facebook does not put a clear restriction on number of characters (as does Twitter), there could be a logical reason for shorter messages. The theme and message of each frame are recognizable. However, it would be interesting to study the differences in frame typology across different media. Would this change their effectiveness, based on the amount of space allotted to expand on each frame? Future research can focus on the typology of frames and how corporations adapt them across different media.

This research focused on the current status and output that corporations use on Facebook. Specifically, it explored the likelihood of interactivity/personalization elements

and of certain frames to generate stakeholders' dialogue, positive reaction and willingness to share the message with other stakeholders. Future research can expand on this, through investigation of the effectiveness of these messages by studying the stakeholders' responses in more depth. To study the effectiveness, future research can focus on investigating the tone and attitude of stakeholder comments or wall posts that are addressing the obesity issue.

Future research can also investigate if the same results are found among other food industry corporations (such as fast food, dining and restaurant industries), as well as across other social media platforms (for example, Twitter and corporate blogs). It is hoped that future research will be conducted to expand on this research and to further contribute to the development of issues management, framing, and social media literature and practice.

APPENDIX A
CODING SHEET A- GENERAL COMPANY INFORMATION

A. Coder _____ 1= Shereen

B. Corporation _____

- 1= PepsiCo Inc. 2= Kraft Foods Inc. 3= Kellogg Company
 4= Quaker® 5= Gatorade® 6= Jell-O®
 7= Special K® 8= Tropicana® 9= Frosted Flakes®
 10= Crystal Light®

C. Type _____

- 1= Parent Corporation 2= Brand Corporation

D. If brand corporation, what is the parent company? _____

- 1= PepsiCo Inc. 2= Kraft Foods Inc. 3= Kellogg Company

E. General Information about Corporation's Facebook:

		Number
1	How many total stakeholders "like" the company?	
2	How many stakeholders have "talked about" the corporation within the last seven days (determined by the number of stakeholders "talking about this")?	
3	What is the total number of official corporate wall posts (not including responding comments) that address the obesity issue?	
4	What is the total number of comments the corporation has posted in response to stakeholders' comments that address the obesity issue?	
5	What is the total number of corporate messages (wall posts and responding comments) that the corporation has posted?	

APPENDIX B
CODING SHEET B

A. Coder _____ 1= Shereen 2= Willy

B. Corporation _____

- 1= PepsiCo Inc. 2= Kraft Foods Inc. 3= Kellogg Company
 4= Quaker® 5= Gatorade® 6= Jell-O®
 7= Special K® 8= Tropicana® 9= Frosted Flakes®
 10= Crystal Light®

C. Type _____

- 1= Parent Corporation 2= Brand Corporation

D. If brand corporation, what is the parent company? _____

- 1= PepsiCo Inc. 2= Kraft Foods Inc. 3= Kellogg Company

E. Content Type _____

- 1= Corporate wall post; text-only 2= Corporate wall post; text + video
 3= Corporate wall post; text + photo 4= Corporate wall post; text + poll
 5= Corporate wall post; text + logo 6= Responding comment
 7= Other: _____

F. Month _____

G. Characteristics of Stakeholder Interaction and Response

		Number
1	How many stakeholders have commented in response to the corporation's message (as indicated by the number of comments)?	
2	How many stakeholders have a positive reaction for the corporation's message (as indicated by the number of "likes")?	
3	How many stakeholder show willingness to share the corporation's message (as indicated by the number of "shares")?	

H. Issues Management Efforts

In regards to the obesity issue:		Presence (Yes:1; No:0)	Frequency
1	Does the corporation share information about the issue?		N/A
2	Does the corporation share information through healthy recipes?		N/A
3	Does the corporation share information from other sources or websites?		N/A
4	Does the corporation use the term "obesity" or forms of the term?		
5	Does the corporation use the terms "nutrition," "nutritious" or forms of the term?		
6	Does the corporation use the terms: "health," "healthy," "healthier," or "healthiest"?		
7	Does the corporation use the term "low-calorie," or forms		

	of the term?		
8	Does the corporation use the terms “unsalted,” “low-sodium,” or forms of the terms?		
9	Does the corporation use the terms “low-fat,” “no trans fat,” or forms of the terms?		
10	Does the corporation use the term “weigh” or “weight”?		
11	Does the corporation use the term “diet,” “dietary” or dietitian?		
12	Does the corporation use the term “lifestyle”?		
13	Does the corporation use the term “low-carb” or talk about good carbohydrates?		
14	Does the corporation use the term “cholesterol-free” or forms of the term?		
15	Does the corporation use the term “sugar-free” or discuss reduced sugar content?		
16	Does the corporation use the term “portion,” discuss proper portions or serving sizes?		
17	Does the corporation talk about sports, exercise, outdoor activities, being active or ways to stay in shape?		
18	Does the corporation talk about collaborating with nonprofits as a solution to the obesity issue or cite a nonprofit source for more information?		
19	Does the corporation talk about collaborating with government as a solution to the obesity issue or cite a government source for more information?		
20	Does the corporation talk about collaborating with schools as a solution to the obesity issue?		
21	Does the corporation talk about collaborating with the medical community as a solution to the obesity issue or cite a medical source for more information?		
22	Does the corporation give stakeholders nutritional information to empower them to make the right choices?		
	Total		

I. Two-way Communication Efforts

In order to increase interactivity by stakeholders, does the corporation:		Presence (Yes:1; No:0)
1	Seek feedback/opinions/comments from stakeholders (e.g., Ask stakeholders “What do you think?” or “Tell us how you feel,”)?	
2	Prompt stakeholders to act in some way (e.g., “Upload a photo,” “Attend this event,” “Learn more by going to this website,” or “Try this recipe to stay healthy”)?	
3	Prompt stakeholders to click “like”?	

In order to personalize the communication with stakeholders, does the corporation:		Presence (Yes:1; No:0)
1	Ask personal questions to stakeholders (e.g., “Tell us your favorite...” or “What is your favorite way to stay active?” “You stay fit by ___”)?	
2	Post wall posts and comments via the corporation’s official Facebook account?	
3	Allow an individual using a personal Facebook account to post on behalf of the corporation?	
	Total	

J. Framing the Obesity Issue

Regarding the Global Initiatives frame, does the corporation:		Presence (Yes:1; No:0)	Frequency
1	Mention global initiatives to help address the rise in obesity?		
2	Discuss the company’s commitment to support healthier lifestyles? (e.g. promotion of healthy and active lifestyles through programs or explicit statement of company’s commitment)		
3	Mention the company’s commitment to making it easier for customers to eat better?		
4	Outline a step the company plans to take to help battle obesity?		
	Total		

Regarding the Product Nutrition frame, does the corporation:		Presence (Yes:1; No:0)	Frequency
1	Talk about product nutrition?		
2	Explain the importance of product nutrition?		
3	Discuss portion size/ servings? (e.g. portion control or amount per serving)		
4	Discuss nutritional characteristics of a product or products?		
5	Discuss the company’s efforts to provide healthier options?		
6	Discuss the company’s efforts to improve nutritional value of current products?		
	Total		

Regarding the Marketing Practices frame, does the corporation:		Presence (Yes:1; No:0)	Frequency
1	Talk about its marketing practices?		
2	Discuss the company's intent to eliminate marketing in schools?		
3	Outline criteria the organization will coordinate with the vending industry to decide which of the company's products are most appropriate to offer in school vending machines?		
4	Discuss company guidelines for its advertising and marketing practices to stress healthy and active lifestyles?		
Total			

Regarding the Consumer Information frame, does the corporation:		Presence (Yes:1; No:0)	Frequency
1	Talk about consumer information?		
2	Discuss nutrition labeling?		
3	Talk about the company's addition of nutrition information to product labels to help make consumer choices easier?		
4	Discuss health-related claims?		
Total			

Regarding the Advocacy and Dialogue frame, does the corporation:		Presence (Yes:1; No:0)	Frequency
1	Talk about company efforts for advocacy and increased dialogue?		
2	Discuss the company's actions to advocate for public policy changes (primarily for schools and communities)?		
3	Discuss efforts or act to increase conversation about the obesity issue with stakeholders?		
Total			

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BIOGRAPHICAL SKETCH

Shereen Sarthou was born in 1988 in San Diego, California. Because her parents were in the Navy, she had the opportunity to visit and live in many unique places around the country and world. After 26 years, her father retired in Chesapeake, Virginia, and Shereen graduated from Western Branch High School in 2006. In August 2006, Shereen began pursuing her undergraduate degree at Virginia Tech, but left in 2007 to attend school in Florida, closer to where her parents lived at the time. She graduated cum laude with a Bachelor of Arts in Mass Communication from the University of South Florida in May 2010.

In August 2010, she moved to Gainesville to pursue her master's degree at University of Florida. Shereen continued to intern during her last year of graduate studies, and finished her two years of graduate courses with a 4.0 grade point average. Upon graduation, she will pursue career opportunities in Florida.