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# 16 Fixing the broken link: Communication strategies for supply chain crises

**Abstract:** This chapter examined exemplar supply chain crises to determine what contextual factors affected the communication strategies available to organizations and the resulting impact of those strategies on stakeholder perceptions and the organization's reputation. The factors identified included whether (1) there were multiple suppliers; (2) the supply chain was part of the brand identity; (3) market competition shared suppliers; (4) the supply chain was national or global; and (5) consumers were directly harmed by the supply chain crisis. The analysis revealed that crises that manifest from the same supply chain risk do not necessitate the same crisis response. Due to the varying perceptions of responsibility by both the stakeholders and organizations involved in supply chain crises, communication response strategies must address both perceived and actual crisis responsibility.

**Keywords:** supply chain, crisis responsibility, attribution theory, stakeholder theory, reputation management

## 1 Introduction

Current business trends show growing reliance on supply chains to meet consumer demands (Natarajarathinam, Capar and Narayanan 2009). While supply chains reduce lead-time and inventory costs, they also open organizations to risk, as direct control is lost over product manufacturing and outcomes (Campi 2013). Reliance on supply chains make businesses more vulnerable to crises and loss of revenue (Masullo 2017; Powell 2011). A recent survey conducted with senior supply chain professionals found that over half of business crises were directly linked to supply chain disruptions and were predicted to continually increase (Masullo 2017). Powell (2011) found supply chain disruptions to be the most dangerous risk to an organization's revenue drivers. The fragility of a supply chain is due to the already thin margin and schedule suppliers face—any delay or disruption has serious ramifications for organizations several steps down the chain, as well as the end users (Manuj and Metzger 2008).

Managing supply chain risk is growing in importance as organizations recognize the interdependent nature of supply chain operations and the domino effect of one disruption in the supply chain (Ritchie and Brindley 2009). Long supply chains, including global supply chains, further increase supply chain complexity and risk (Manuj and Metzger 2008) and can limit organization flexibility (Natarajarathinam et al. 2009). Identifying exactly where product failure occurred and who is responsible in a complicated supply chain can take considerable time and extend the length of a crisis.

Due to the varying perceptions of responsibility by both the stakeholders and organizations involved in supply chain crises, crisis response strategies for these types of crises must consider both perceived and actual responsibility. Despite an organization's lack of control over the practices and timelines of all suppliers, stakeholders will hold the organization selling the end product responsible for any product failings. Organizations must therefore communicate with stakeholders regarding perceived responsibility while determining the actual cause of the supply chain failure. This chapter argues that crisis communication in a supply chain crisis requires a more nuanced approach because the context uniquely challenges stakeholder attributions of responsibility.

Research on supply chains originates mostly from business and management journals, offering insight into proper management of supply chains (Blackhurst and Wu 2009; Powell 2011; Zuckerman 2002), risks inherent in the use of supply chains (Chapman, Christopher, Jüttner, Peck and Wilding 2002; Ritchie and Brindley 2009; Natarajarathinam et al. 2009), and other internal organizational objectives regarding supply chain management (Blackhurst and Wu 2009; Gaudenzi and Borghesi 2006; Ritchie and Brindley 2009; Zuckerman 2002). However, research thus far does not account for stakeholder perceptions of organizational responsibility or offer communication strategies for responding to a supply chain crisis. Hittle and Leonard (2011) call for further examination of supply chain crisis management to improve organizational functioning and stakeholder relations.

This chapter answers that call by critically examining exemplar supply chain crises to determine what factors, specific to each organization's supply chain, affected the communication strategies available to the organization and the resulting impact of those strategies on stakeholder perceptions and the organization's reputation. In the following section, we discuss supply chain risk and the applicable theories that highlight the distinct communication challenges of supply chain crises.

## **2 A theoretical framework for understanding supply chain crisis communication**

Supply chains function to meet customer demand through an interconnected system of suppliers, production facilities, and related systems working toward production of a final product (Stock and Boyer 2009). Prioritizing efficiency, supply chains attempt to meet consumer demands while maintaining low inventory costs. Despite the clear benefits of supply chains, financial executives in both the United States and Europe rank supply chains as one of the top three business risk areas (Ritchie and Brindley 2009). A global supply chain introduces further complexity with greater numbers of suppliers to manage and various international constraints (Manuj and Mentzer 2008).

Risks to supply chains can be divided into internal, external, and network risks (Chapman et al. 2002). Examples of internal risk include production issues, structural defects, labor concerns, and IT-related incidents. External risks include political and legal influences, natural disasters, social factors and marketing risks. Network related risks are the interactions among the organizations involved in the supply chain (Chapman et al. 2002; Natarajarathinam et al. 2009). Each risk type has the potential to result in a supply chain disruption, and potentially a supply chain crisis for which an organization must answer.

Crisis communication research explores the role of communication before, during and after a crisis to better understand the impact of organizational response on the onset of and recovery from a crisis (Coffelt, Smith, Sollitto and Payne 2010). Effective crisis management involves operational recovery or sustainment, minimizing stakeholder and organizational losses, and learning from past experiences (Miller and Horsley 2009; Pearson and Clair 1998). Crises also require a communicative response to address stakeholder concerns. According to Heath and Millar (2004), “each crisis has an actual dimension and a perceived dimension” (Heath and Millar: 6). Individuals are active in interpreting the interactions and events that occur and engage in sensemaking (Weick and Sutcliff 2001). The process of interpretation is done in order to both garner understanding, as well as establish control of the environment in which the individual exists. In the instance of an organizational crisis, impacted stakeholders are likely to engage in interpretation to make sense of the changing environment and determine at-fault parties (Coombs 2007).

## 2.1 Stakeholder theory

For an organization to successfully manage a crisis, it must consider critical relationships with stakeholders, or publics with an actual or perceived tie to the organization (Freeman and Gilbert 1987). Such a perspective can “mean the difference between continued organizational successes and organizational failures” (Pearson and Clair 1998: 71). Waymer and Heath (2007: 88) suggest a greater focus on the “voices of the affected publics, those whose interests are part or most of the reason why the subject organization is suffering a crisis and in need of responding to public and media inquiry.” A stakeholder approach is utilized for both strategic and moral reasons. Strategically, consideration of all stakeholders can lead to better crisis outcomes. Morally, a consideration of all stakeholders, not just those recognized as impactful to the bottom line, is a more ethically strong organizational practice (Ulmer 2001). An understanding of stakeholder perceptions regarding the attribution of responsibility and control in the crisis is necessary for successful crisis response.

## 2.2 Attribution theory

Heider (1958) developed attribution theory to examine the human tendency to attach meaning to individual behaviors both within oneself and others. When an individual deems a cause to their own or others' behaviors, they determine an attribution (Littlejohn, Foss and Oetzel 2017). A focus on attribution of responsibility deviates from the perceiver seeking cause of an action and focuses more on the human desire to assign responsibility for the behavior or outcome (Manusov and Spitzberg 2008). The more responsibility an organization is perceived to have in regard to the crisis, the greater the negative stakeholder perception of the organization (Coombs 2007; Manusov and Spitzberg 2008). The stakeholders' perception of organizational responsibility in a supply chain crisis is more important than the actual responsibility the organization has for the cause of the crisis. After all, it is stakeholders' perception of the crisis that will ultimately affect the organization's reputation.

## 2.3 Organizational reputation

Reputation is formed through "interactions and communication between organizations and stakeholders" (Coombs and Holladay 2006: 124; Fombrun and van Riel 2003), but if an organization is not forthcoming regarding their reliance on a supply chain, stakeholders may not include suppliers in their perception of the organization. Organizations may be perceived as singular entities even though the realities of an increasingly outsourced world should provide for an expanded view of the organization. In a supply chain crisis, organizations must answer as the sole responsible party for multiple entities' actions that impact reputation.

Barnett and Hoffman (2008) called for research regarding reputation beyond the traditional definition of singular corporate action. They examined reputation in relation to other organizations, asserting that the actions of one organization can impact another organization's reputation since "the company you keep affects the company you keep" (Barnett and Hoffman: 1). Veil, Dillingham, and Sloan (2016) described this specific type of reputation threat as a spillover crisis: when "events in an external organization create concern, uncertainty, or perceptions of harm for another organization" (Veil et al. 2016: 317). In a spillover crisis, an organization receives reputational damage, or negative spillover, due to a similar organization's actions (see Chapter 17 in this handbook).

While both supply chain crises and spillover crises deal with stakeholder perceptions of organizational responsibility, it is important to note a key distinguishing factor between the two, the element of control. In a spillover crisis an organization is unable to control the happenings of an outside but related organization. A supply chain crisis, on the other hand, is directly related to the organization as a member of its supply chain has caused the crisis. Responding to crises that involve supply chains

and multiple identities that could create negative spillover effects complicates theory predicated on a singular organizational identity and reputation, such as situational crisis communication theory (SCCT).

## 2.4 Situational crisis communication theory

Organizations can engage in crisis response strategies to frame attributions of crisis responsibility, influence stakeholder perceptions, and reduce the negative reputational effects generated by crisis (Coombs 1995, 2007). Grounded in attribution theory, SCCT offers a communication framework to manage reputational effects of crisis on an organization (see Chapter 5 in this handbook). According to SCCT, individuals consider an organization's crisis history, prior relational reputation, and initial crisis responsibility when attributing crisis responsibility (Coombs 2007). The greater the level of responsibility attributed to an organization, the more damaging the crisis will be to organizational reputation (Coombs 1995, 2006). A poor prior relational reputation with stakeholders and/or a history of similar crises will intensify attributions of responsibility and further increase reputational threat (Coombs 2007).

Coombs (2006) suggests that “an appropriate crisis response strategy matches the level of reputational damage generated by the crisis situation with the ‘protective powers’ of the crisis response strategies” (Coombs 2006: 245). These protective powers refer to the “ability to create perceptions of the organization taking responsibility for the crisis and aiding victims” (Coombs 2006: 255). In other words, if crisis response strategies are selected according to stakeholder perceptions of responsibility, the aligned response has the potential to positively impact the organization's reputation and improve the crisis situation. Accordingly, organizations that select strategies that do not align with stakeholder assessments of control and responsibility will not benefit from the “protective powers” that would be offered by an aligned response strategy.

While SCCT offers an effective framework to determine crisis response, the theory does not account for crises where responsibility is obscured. Supply chain crises are generally not under the direct control of an organization, but if the organization does not attune to the unique stakeholder perceptions regarding the organization as the at-fault party, the correct crisis response strategy will not be selected.

This next section critically examines exemplar supply chain crises to determine what factors, specific to each organization's supply chain, affected the communication strategies available to the organization and the resulting impact of those strategies on the organization's reputation. The cases were selected for analysis because they were relatively current, represented varying industries and supply chain risk types, and were newsworthy at their time of occurrence.

## 3 Exemplar supply chain crisis cases

To establish timelines and understand key elements and themes in the cases, a Google News search was initiated for articles regarding the impacted products and brands in each supply chain crisis. The articles retrieved were reviewed for relevant information and links to additional articles with new information were followed until no new information was uncovered. A case summary was written and then modified based on additional case evidence from organizational press releases and government documents. The cases were categorized into the supply chain risk types and then analyzed to identify factors affecting the communication strategies available to the organization and the resulting impact of those strategies on stakeholder perceptions and the organization's reputation.

### 3.1 Internal supply chain risks

According to Chapman et al. (2002), internal supply chain risks include production issues, structural defects, labor concerns, and IT-related incidents. The following supply chain crises experienced by King Nut and Kellogg, Chipotle, and Samsung were all caused by internal supply chain risks and resulted in faulty products endangering the health and wellbeing of consumers. However, the nuances of each case demonstrate how contextual factors such as having multiple suppliers, a brand identity inclusive of the supply chain, and shared suppliers in an intense market competition may determine the communication strategies available to organizations in crisis and affect stakeholder perceptions of crisis responsibility and organizational reputation.

#### 3.1.1 King Nut and Kellogg

In 2009, a Salmonella outbreak resulted in a recall of over 3,900 peanut products from more than 200 brands. The cause of the outbreak was peanut paste produced by Peanut Corporation of America (PCA), which supplied peanut paste to a wide-range of companies all over the world (Andrews 2012). PCA, a link in each impacted organization's supply chain, failed to maintain proper facilities and follow through on safety checks, resulting in widespread Salmonella contamination (McCoy 2015). PCA's failings forced companies to recall products and address stakeholder perceptions of crisis responsibility.

King Nut, the first organization implicated in the Salmonella outbreak, released a statement saying "King Nut does not supply any of the ingredients for the peanut butter distributed under its label" and that all recalled peanut butter was "manufactured by Peanut Corporation of America" (CNN 2009). Because PCA was the sole supplier for the contaminated peanut butter, King Nut was able to name PCA as the

at-fault party, deflecting blame and framing King Nut as a victim of a supply chain crisis in its first statement.

Kellogg, one of the largest companies affected, was unable to immediately distance itself from the crisis due to having multiple peanut paste suppliers for its products (Kellogg 2009a). Kellogg had to engage in a multi-phased response including a precautionary hold and voluntary recall before an expanded recall was issued. Similar to King Nut, Kellogg named PCA as the responsible party and utilized victim rhetoric to diminish crisis responsibility. However, Kellogg was forced to deal with the outbreak longer than King Nut. Kellogg's multiple suppliers for the same ingredient complicated and extended the process of identifying which products should be recalled.

Having multiple suppliers allows for flexibility within a supply chain, an objective Gaudenzi and Borghesi (2006) identify as important to supply chain management. If one supplier is unable to produce the necessary product, another supplier of the same product can pick up the slack. However, as demonstrated by Kellogg, the comingling of suppliers leads to additional complications and greater risk when a supply chain crisis occurs and the source of the crisis must be identified. The amount of time an organization must spend associated with the supply chain crisis increases while the source of the crisis is correctly identified within the intermixed supply chain. The extended length of the crisis increases stakeholder perceptions of crisis responsibility and negative impacts on organizational reputation.

### 3.1.2 Chipotle

Chipotle faced a similar supply chain crisis involving foodborne illness and multiple suppliers. However, as a franchise with more than 2400 locations, locally owned and supplied with local products, Chipotle also experienced negative spillover effects wherein an outbreak in one franchise location affected the reputation of other franchise locations even though the locations used completely different suppliers for produce. Late in 2015 the Chipotle brand experienced what Veil and Anthony (2017: 141) describe as a compounding crisis, "a crisis that occurs in close succession to another (potentially unrelated) crisis before an organization has had the opportunity to rebuild legitimacy." The crisis started with a norovirus outbreak at a California Chipotle franchise location in August 2015. Then, in September, 22 Chipotle locations in Minnesota used tomatoes contaminated with Salmonella (Zuraw 2015). In November, an E. coli outbreak affected consumers in 11 states in the US. Despite food and environmental testing done by Chipotle and the US Food and Drug Administration, no link was ever discovered regarding where in the supply chain the E. coli originated (Brumfield, Sutton, Kounang and Christensen 2015). Finally, in December 2015 another norovirus outbreak originated from a Boston, Massachusetts Chipotle.

In contrast to Chipotle's tagline "Food With Integrity" and claims differentiating the chain from other fast food options with quality, "real" ingredients, Chipot-

le's response to the crisis involved conditional claims of responsibility. Restaurants were closed "out of an abundance of caution" while Chipotle continued to follow "its already high standards for food safety" (Chipotle 2015). SCCT recommends diminishing strategies should only be used when organizations have low attributions of crisis responsibility and no history of similar crises (Coombs 2007). The series of outbreaks and the crisis response were not in line with Chipotle's brand reputation, creating an expectation gap when stakeholders' expectations for food quality and organizational transparency were not met (Coombs 2007).

Finally, the CEO of Chipotle, Steve Ells, made an appearance on the Today Show and issued a full page letter in news outlets distributed around the country publically apologizing to those who had fallen ill and informing stakeholders of a food safety program he claimed would exceed industry norms (Berfield 2015). In addition to the new food safety initiatives, the organization held a Food Safety Day in February 2016. Stores around the country shut down to train employees on the improved food safety techniques (Williams 2016). Despite these corrective actions, in July 2017 Chipotle experienced another norovirus outbreak in Virginia that sickened over 130 customers (Peterson 2017). Market analysts deemed Chipotle stock as high-risk in the restaurant category "in part due to the health-related challenges that clearly have not fully dissipated" (Peterson 2017).

Chipotle's reputation was shaped by their choice of supply chain and the brand identity of using local suppliers and ingredient transparency. Even though the compounding crisis was caused by multiple breaks in the supply chain at unrelated franchise locations, because the localized supply chain was part of Chipotle's identity, stakeholders perceived Chipotle as the cause of the crises and were not satisfied until Chipotle took full responsibility for the compounding crisis events.

### **3.1.3 Samsung**

Samsung's Galaxy Note 7 also fell under the category of internal supply chain risk, but differed in industry and outcome from King Nut, Kellogg, and Chipotle as it did not deal with foodborne illness issues. In August 2016 the Samsung Galaxy Note 7 was released in the United States and South Korea. Less than one week after being placed on the market, reports surfaced regarding batteries overheating and phones exploding (Pak and Young 2016). The United States Federal Aviation Association and the United States Consumer Product Safety Commission issued a ban on all Galaxy Note 7s on aircrafts and suggest consumers discontinue use of the phone (Dolcourt 2017). Samsung issued a global recall for over 2.5 million phones and offered customers a replacement phone that was built using a different battery supplier. However, Samsung yet again faced reports of batteries overheating and phones exploding (Pak and Young 2016). Samsung discontinued the production of the Galaxy Note 7 and advised consumers to stop using the device. Estimations show the company

lost upwards of \$5 billion due to this supply chain crisis (Brody 2016; Dolcourt 2017).

Samsung's own manufacturing company, Samsung SDI, was responsible for about two thirds of the batteries used in the initial release of the Galaxy Note. Samsung SDI also supplied batteries to other top brands, including Apple (Spieler 2016), whose devices were not overheating. The replacement Note 7s used a battery made by different supplier but still overheated. Thus, Samsung could not say for certain that the battery was the root cause of the exploding phones. The fact that two different battery suppliers resulted in the same defect disabled the corporation from placating stakeholders that the issue was that of a supplier (Lopez 2017). In January 2017, Samsung's President of Mobile Communications Business offered apologies on behalf of the company to consumers, distributors, mobile operators and all other impacted by the Galaxy Note 7 incidents (Samsung 2017a).

The consistency of defect across suppliers indicated "either an engineering mistake or lack of specificity at play within the product design level" (Lopez 2017, para. 5). Further blame was placed on Samsung as other phone makers that utilized the SDI battery did not experience similar issues. In addition, the release date of the Galaxy Note 7 was presumed to be rushed in order to beat the competing iPhone 7 release date and be on the market for holiday buyers, leading to reduced quality control measures (Brody 2016). Lopez and McKeivitt (2017) cite just-in-time production, pressures from competition and poor quality control as the downfalls in the Galaxy Note 7 production. "Rather than leveraging their supply chain as a competitive advantage, Samsung's speed-to-market ended up costing them customer loyalty, brand reputation, and sales" (Brody 2016, para. 4).

In a press release announcing the Galaxy Note 8 features, Samsung included a safety reassurance to potential customers stating "The Galaxy Note 8's battery has undergone Samsung's 8-Point Battery Safety Check—the most rigorous in the industry" (Samsung 2017b). In September 2017, Samsung announced greater Note 8 sales in the United States than previous Note devices in the same time period (Samsung 2017c). While Samsung was limited in its ability to identify a cause for the overheating, the organization never specifically named suppliers and accepted responsibility for the crisis. The organization's use of corrective action, through publicized enhanced safety measures, seemed to assuage loyal Note users to continue use of Samsung products.

### 3.2 External supply chain risks

External risks include political and legal influences, natural disasters, social factors, and marketing risks (Chapman et al. 2002). The two supply chain crises examined with this risk type were both caused by natural disasters. 2017's Hurricane Harvey in Houston, Texas negatively impacted the energy sector and the 2011 Tohoku earthquake and tsunami that impacted Fukushima, Japan strained the automobile sector.

The gulf area near Houston is responsible for almost one third of the United State's capacity to "turn oil into gas, diesel and other products" while Fukushima, Japan, a hub for the automobile production industry, produces 60 percent of the world's supply of critical auto parts (Disis, Egan and Isidore 2017). Both disasters demonstrated the increased risk of reliance on one region for production in an industry. The responses were also similar for both crises, prioritizing compassion for impacted lives and employee safety before discussing production concerns. However, media coverage of stakeholders' response to delays caused by the crises differed considerably. Following Hurricane Harvey, despite rising gasoline prices nationwide and shortages of essential chemical products, public response focused more on the impact of the disaster with the shortages as a minor side note. Following the Tohoku earthquake, however, public response focused on the production delays Toyota was experiencing and the impact on Toyota inventory. The stakeholder responses to Harvey and Tohoku point toward differing expectations for national versus global supply chains.

### 3.2.1 Hurricane Harvey

Hurricane Harvey made landfall in south-central Texas as a Category 4 hurricane with 130-mph winds that threatened the Gulf Coast energy sector (Disis, Egan and Isidore 2017). Impacted areas, including Houston and Corpus Christi, contained key oil drilling, refining, and chemical manufacturing facilities, as well as some of America's largest seaports. Two of the largest oil refineries in the United States, Motiva's Port Arthur refinery and Exxon Mobil's Baytown refinery were shut down due to flooding (DiChristopher 2017; Disis, Egan and Isidore 2017). Other major corporations including Shell, Phillips 66, Marathon, Valero, Citgo and Petrobras also shut down refineries, suspended production or operated at reduced capacity in the aftermath of Hurricane Harvey (DiChristopher 2017). With the energy sector localized in one region, the impact of the disaster caused major disruptions along the supply chain as gas prices increased (Koenig 2017).

Facility shutdowns also led to a shortage of a major petrochemical component essential for the production of plastics and industrial goods, ethylene. Texas produces nearly three quarters of the United States supply of ethylene (Kaskey 2017). Ethylene and its subsidiary products account for a huge portion of the global chemical sales so even a slight disturbance to the supply chain "will dramatically tighten supply-demand balances" (Kaskey 2017). One such impact can be seen with Newell Brands, makers of such products as Rubbermaid containers, Elmer's Glue, Sharpies and Coleman Grills. The corporation announced a projected drop in 2017 earnings due to a resin shortage and soaring resin prices, a result of ethylene shortages (Terlep 2017).

Responses from impacted corporations such as ExxonMobil, Shell, Citgo, Phillips 66, Marathon, and Valero were uniform in response strategy of first expressing condolences for impacted stakeholders and employees before discussing refinery

shutdowns and distribution issues, if such issues were mentioned at all. Corporations also took to expressing compassion for communities through donations of millions of dollars to Harvey relief efforts and implementation of employee volunteer involvement programs. While corporations released statements regarding Harvey, the acceptance of responsibility for the supply chain crisis, as previously seen in other supply chain crises, was replaced by expressions of condolences to affected stakeholders and promises of assistance to those impacted in the area.

Stakeholder responses included phrasing of compassion in the face of the natural disaster with such reminders as “the effect on energy commodities does not compare to the devastation to the lives of millions” and “as we pay more at the pump, perhaps we will think of those who are rebuilding in Houston, Rockport and Corpus Christi and remember to help as we can” within articles chronicling rising gas prices and supply chain disruptions (Wald 2017). A *Market Watch* article that detailed dropping energy stocks in the face of Harvey, first acknowledge the deceased and displaced residents and the image supporting the article was one of flood victims at a Houston shelter with a compassionate caption underneath (Assis 2017).

The force majeure clause, included in supplier contracts, relieves one or both parties of obligations for fulfillment in the case of an “act of God” such as a natural disaster. During Hurricane Harvey, it seemed the stakeholder response adhered to a similar clause of relieving corporations of responsibility for fulfillment when a natural disaster strikes. Both public and corporate responses utilized compassionate rhetoric toward the impacted lives of those in the Gulf Coast area and refrained from placing blame on the refineries unable to meet public need for gasoline. While clear that stakeholders demand an identifiable source of blame during a supply chain crisis, in the case of Hurricane Harvey, the storm itself was an acceptable source of blame for the supply shortages and rising prices of gasoline.

### 3.2.2 Tohoku earthquake and tsunami

On March 11, 2011 a magnitude 9.0 earthquake and resulting tsunami struck Japan’s northeast coast, endangering millions and killing tens of thousands (CNN 2011; CNN 2017). In addition to the devastating impact on human lives and the environmental concerns of radioactive elements, supply chains around the world faced major strains (Newswise 2012). Experts stated the disaster in Japan presented a first-of-its kind challenge for global supply chains, as multiple suppliers were located in the same impacted region (Lohr 2011; Tajitsu and Yamazaki 2016). In particular, the city of Fukushima contained several manufacturing facilities for the production of motor vehicles.

Toyota faced devastating financial impacts following the Tohoku earthquake. In efforts to reduce inventory and costs, Toyota pioneered the just-in-time manufacturing model in which manufacturers maintain low levels of inventory and rely on the supply

chain to deliver the necessary parts “just in time” for production (Power 2011; Tajitsu and Yamazaki 2016). This lean production model has been adopted by many global manufacturers but proved to be risky and particularly vulnerable to crises, especially natural disasters. A leading supply chain consultant, Bob Ferarri, questioned if “the quest of lowest-cost production and hyper-lean supply chains [had] overridden and exposed vulnerability to significant business risk” following the earthquake and tsunami (Powell 2011, para. 8). Lohr (2011) suggested the aftermath of Tohoku would prompt companies to re-evaluate their manufacturing methods and perhaps switch to a lower risk supply chain with additional inventory and backup suppliers. Due to the large number of factory shut downs and the lean inventory approach, by the end of May Toyota had lost the production of almost one million vehicles, 550,000 in Japan and 350,000 overseas, and saw January-March profits fall by over 75 percent (Kageyama 2011). Overall, Toyota faced over “\$1.3 billion in losses attributed to production delays and losses from its suppliers” (Newswise 2012: para. 15).

Corporate response following the Tohoku earthquake and tsunami was similar to corporate responses seen in the aftermath of Hurricane Harvey in the expressions of condolences and compassion to those impacted and prioritizing employee safety. Similarly to the CEO of Shell publishing an open letter to those impacted by Harvey, the president of Toyota released a letter offering his sympathies in the aftermath of the disaster (Toyota 2011a).

These responses differed, however, in the immediacy of reporting on supplier delays and the regularity of updates on production delays and status of facilities. Information regarding North American production and dealership delays was particularly recurrent. The first press release from Toyota, on the day of the earthquake and tsunami, reported plant shut downs, the safety of their employees and that the corporation was “currently assessing the situation at our suppliers, dealers and the impact on North American import vehicles” (Toyota 2011b: para. 7). Similar to those released by energy corporations following Harvey, Toyota press releases highlighted the altruistic donations of millions of dollars to relief efforts and encouraged volunteerism. These statements, however, differed again from impacted Harvey corporations by acknowledgement of production delays and concern for supplier issues, particularly those that would impact North American production. On April 15, 2011 Toyota offered apologies to consumers “for not being able to build every vehicle to meet their desire specifications due to limited parts” (Toyota 2011c).

The corporate response regarding production delays and shortages following a natural disaster differed for Toyota as compared to Shell, Citgo, and other impacted energy corporations, indicating differing expectations of stakeholders regarding domestic natural disasters versus international natural disasters and the tolerance level for product delays as a result of these disasters. The apologetic tone Toyota adopted toward North American production delays greatly differed from anything offered by impacted corporations during Harvey. Despite Harvey’s resulting rising gasoline prices and shortages of essential chemicals such as ethylene, corporations

did not need to offer timelines or condolences for delays as Toyota did following Tohoku, an arguably more severe natural disaster.

### 3.3 Network related risks

Network related risks are caused by the interactions among the organizations involved in the supply chain (Chapman et al. 2002; Natarajarathinam et al. 2009). Both o.b. Tampons and KFC experienced supply chain crises caused by network related risk. Both cases also resulted in product shortages. Rather than the consumer receiving a faulty product, as was the case for the supply chain crises caused by internal risk, in both of these supply chain crises the consumer did not receive any products at all. Since the organization was harmed the most by the supply chain break, both organizations decided to use humor to respond to consumers regarding the missing products.

#### 3.3.1 o.b. Tampons

In 2010, o.b. Tampons began disappearing from drug store shelves. A spokesperson from o.b.'s parent company, McNeil-PPC, a unit of Johnson & Johnson, released the following statement: "o.b. tampons experienced a temporary supply interruption that has resulted in some stores being out of stock. We are working hard to bring supply back in line with demand and expect these stores to be restocked soon. We apologize to o.b. customers who may have been inconvenienced" (Binlot 2010: para. 7).

Women began directly emailing the company asking where the product was and how to go about obtaining it while prices for the product skyrocketed online. A consultant and loyalty expert, Diane Durkin, offered *abcNews* insight as to why this product disappearance was especially sensitive, "What happens is that people get really committed to a particular comfort level and in this case it's not only with the brand but with the product itself. This is also a very personal item, and because it's so personal people want the comfort. This is not something you fool around with" (Cohen 2010).

In response to the outrage, o.b. Tampons came out with a customizable apology video that utilized popular culture romantic clichés of love and deep regret to apologize to customers for their inconvenience as well as offering a two dollar discount on their next purchase. The video enabled customers to write their name before playing so that the video was directed specifically at them. The video went viral and not only placated disgruntled customers but also exposed new consumers to o.b. products (Morgan 2018).

### 3.3.2 KFC chicken shortage

In a similar case, in February 2018, hundreds of KFC restaurants in the United Kingdom were shut down because they ran out of chicken (Petroff 2018). The organization stated the shortage was due to the recent switch to a new delivery company and cautioned consumers the issue with the vendor would continue to affect hundreds of UK stores as it was straightened out (Bomey 2018). KFC identified the at-fault vendor and jokingly commented on the shortage on Twitter stating “We’ve brought a new delivery partner onboard, but they’ve had a couple of teething problems – getting chicken out to 900 restaurants across the country is pretty complex!” (Bomey 2018: para. 6). The company also took out a full page advertisement in British newspapers apologizing for the supply chain issues and placing “an empty bucket with the chain’s initials scrambled to say ‘FCK’ on it” (Petroff 2018: para. 2).

Despite 900 restaurants being closed across the UK, KFC employed humor in responding to consumers, making light of the fact that Kentucky Fried Chicken had run out of chicken. The newspaper advertisement began by stating “A chicken restaurant without any chicken. It’s not ideal.” before offering an apology for the shortage and explanation of the efforts being made to ensure chicken returned quickly to the impacted restaurants. The humorous response to the supply chain crisis was considered advertising gold and resulted in significant positive media attention for the brand (Morgan 2018).

## 4 Conclusions

By examining exemplar supply chain crises to determine what factors affected the communication strategies available to each organization and the resulting impact of those strategies on stakeholder perceptions and the organization’s reputation, this chapter demonstrates that communication in a supply chain crisis requires a nuanced approach based on the contextual factors of the crisis and should not be considered a distinct crisis type that warrants a prescriptive crisis communication response. Even more, while risks to supply chains can be divided into internal, external, and network risks (Chapman et al. 2002), crises that manifest from the same risk do not necessitate the same crisis response. Due to the varying perceptions of responsibility by both the stakeholders and organizations involved in supply chain crises, response strategies must consider both perceived and actual responsibility. The tenets of SCCT still apply in supply chain crises. However, organizations must consider that even when a supplier is entirely at fault, stakeholders will hold the seller of the end product accountable for the crisis, particular if the organization’s identity is tied to the supply chain structure, as was the case for Chipotle.

While the results of the analysis presented in this chapter cannot be generalized across all types of supply chain crises, the examination of the exemplar cases did identify factors that could affect communication responses and resulting stakeholder perceptions and organizational reputation in a supply chain crisis. The factors identified included whether (1) there were multiple suppliers; (2) the supply chain was part of the brand identity; (3) market competition shared suppliers; (4) the supply chain was national or global; and (5) consumers were directly harmed by the supply chain crisis. The cases examined demonstrate the inherent challenges of communicating in a supply chain crisis. In some cases, particularly when consumers have been hurt or there is a history of crises, only a full apology and corrective action will assuage stakeholders. In other cases, when there are alternatives for the end product and consumers are not directly harmed by the supply chain crisis, self-deprecating humor is entirely appropriate. Ultimately, this chapter recognizes that organizations must examine the contextual factors that could influence the communication strategies available and the affect of those strategies on stakeholder perceptions and organizational reputation.

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