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Content Analysis of British Petroleum and Tokyo Electric Power Company's
Crisis Communication Messages. Comparative Analysis of Crisis Communication
Strategies.

Viktoryia Abramenka

A Thesis Submitted to the Graduate Faculty of

GRAND VALLEY STATE UNIVERSITY

In

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School of Communications

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Abstract

This research analyzes the crisis communication messages of the two organizations British Petroleum (BP) and Tokyo Electric Power Company (TEPCO). The study looks at the organizations' press-releases, Facebook updates and tweets. The research looks at detecting four main themes in the companies' crisis communication messages: trust, collaboration, commitment, and interactivity. This study then goes on to look at the crisis communication strategies.

BP's 60 press releases and 70 Facebook updates along with TEPCO's 60 press releases and 65 tweets were analyzed. The findings of the research showed that BP mainly addressed the company's commitment to resolve the crisis. Additionally, the organization emphasized collaboration, and its financial losses. The company both emphasized its financial losses incurred during the crisis, and the amount of the compensation paid to victims of the crisis. TEPCO stressed commitment and collaboration. Additionally, the organization expressed apologies. In most cases, the company started press releases with apologies for the inconveniences caused by the accident and their commitment to do their best to tackle the impact of the crisis as soon as possible. Yet, TEPCO did not provide any information about the cost of their corrective actions or any compensation paid, if any, to victims of the crisis compared to BP.

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Chapter one: Introduction

Introduction

This research focuses on the comparative analysis of two crises with the view of identifying the main mistakes in crisis communication messages. This study aims to analyze what kinds of frames have been used by British Petroleum (BP) and Tokyo Electric Power Company (TEPCO) in the press releases, Facebook updates and Twitter. Based on the findings of the content analysis, the study looked further into the comparative analysis of the crisis communication response strategies of the two companies. These two crises were chosen for analysis since both of them are large-scale crises that have caused enormous harm to the environment and people's lives. These types of crises should be handled in a timely manner since natural disaster crises do typically affect not only one region or one territory. According to the typology of crises offered by Coombs (2007), this research discusses the "natural disaster" crisis and the industrial accident. In 2010 and 2011, there were large-scale crises that caused serious damage.

Description of the Case Studies

British Petroleum.

On April 20, 2010, the biggest chemical poisoning in the U.S. history happened. On this day in 2010 the Deepwater Horizon oil rig exploded, causing oil to gush from 5,000 feet below the surface into the ninth largest body of water on the planet. 11 men who worked on the exploratory well were killed. At least 4.9 million barrels of BP's oil eventually released into the Gulf of Mexico before the well was capped 87 days later. In total, between 185 and 205 million gallons of crude oil poured into Gulf. Marine and

wildlife biologists, toxicologists, and medical doctors have described the impact of the disaster upon the environment and human health as “catastrophic”.

BP’s efforts to solve the crisis faced a lot of critiques. According to the analyses by Capstick (2010) and Sellnow (2010), one of the main mistakes was that BP followed classic communications methods using new mediums. According to business communication professionals, BP should have spent more time using social media to connect and communicate in a more human way with the citizens of the world. Also, they needed to create their messages to stimulate a conversation, providing a realistic portrait of the work being done, or dialogue in a live questions and answers session. Instead, BP’s crisis communicators created a video message that looked more like television advertisement. Additionally, BP failed to create messages in a human and conversational tone (Capstick, 2010 and Sellnow, 2010).

Social media help people collaborate, discuss possible solutions and debate about the best ways to solve the problem. Social media is not just a way to tell a story, it is a way to create, share a story and allow anybody who is interested to collaborate in the problem solution. BP used the social media channels to re-broadcast their not engaging, cold and calculated messaging. This bad maneuver of social media was manifested by the fact that BP turned off comments on its You-Tube channel (Capstick, 2010).

TEPCO.

Another serious crisis happened in Japan, March 11, 2011. The earthquake that hit Japan was several times more powerful than the worst earthquake in the history of the country. This caused an explosion at a seashore nuclear power plant located in the region of Okuma. The explosion resulted in releasing dangerous radiation of unspecified

proportions into the air. The Japanese government and Tokyo Electric Power Company (TEPCO), the company running the nuclear power plant, were criticized for failing to observe fundamental principles of good crisis communication.

A study conducted by Yilmaz (2011) singles out the following errors in crisis communication management:

- Formal organization

The formal organization of the government's communication appeared to be slow and poorly coordinated. TEPCO withheld information from both the government and the public. Only on the sixth day of the crisis the government finally assembled a joint crisis management team consisting of TEPCO and government officials to access information circulating in media about the situation in the nuclear plant. Many contradicted comments already existed in media.

- Message content

Public authorities failed to communicate accurately and clearly. The content of the message was not transparent and coherent. It gave the sense that the government was withholding information or intentionally keeping low their estimates when no data was available.

- Insufficient coordination of crisis management activity with crisis communication objectives

Crisis management and crisis communication were not synchronised. Actions taken such as the several extensions of the evacuation radius from 2 km to 30 km were not considered in terms of the message that such actions send out (in this case the message

was: “the situation is aggravating gradually by a factor of 15 and getting out of control”). (Yilmaz, 2011).

According to the results of a recent Fuji TV poll, the Japanese’ mistrust in the government skyrocketed: around 80 per cent of voters do not trust the government’s information on the nuclear crisis and according to a Kyodo news agency poll only 1.3 per cent think Prime Minister Kan was exercising sufficient leadership. Trust and transparency remain the key points if authorities want citizens to abide by official guidelines to keep order in case of an emergency.

Importance of the Problem and Rationale of the Study

In both cases explained earlier, there is failure to communicate effectively. Furthermore, it is also important to take into consideration that new media environment requires to adapt new approaches to communicate with the public. To be specific, new media stimulates a two-way street communication, collaboration and discussion. Social media has become a natural part of search when people look for information such as the ways to protect themselves from a crisis risk. Microblogs, blogs, social networking sites, content communities, and discussion boards have become places where people look for instructing information. Therefore, this research focuses on the importance of constructing messages effectively given the new opportunities being offered by virtual environment. The key is this study looks into detecting themes and frames in the crisis communication messages which can be of great importance for organizations to identify an appropriate crisis response for natural disaster and industrial accident types of crises.

Chapter Two: Literature Review

Definition of Crisis Communication

Coombs and Holladay (2010) define crisis communication as gathering, processing, and spreading of information and data required for addressing a crisis situation. Benoit (1995) and Coombs (1999) emphasize that crisis communication is more typically associated with public relations and the need for organizations to repair damaged image after a crisis or disaster.

Crisis communication is given much importance due to the fact that a crisis is primarily “a perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization’s performance and generate negative outcomes” (Coombs, 2007, 2). Coombs (2007) stresses the need for a proactive approach in order to adequately manage public perception. Hence, crisis communication can be described as the dialog between the organization and its public prior to, during, and after the negative occurrence. The dialogue between organizations and their customers, or stakeholders covers strategies and tactics that are meant to minimize damage to the image of the organization (Fearn-Banks, 2007).

Any organization can face a crisis situation which is described as a specific unexpected event that can threaten and damage the organization’s image. An organization’s reputation or goodwill is considered to be the most powerful intangible asset. Therefore, organizations pay much attention to the ways of maintaining and boosting their reputation especially during the crisis.

Types of Crises

Several crisis taxonomies have been developed in the research literature. The crises are classified as “natural disasters” (tsunamis, earthquakes, and wild fires), industrial accidents (spills, explosions, and product), and intentional events (workplace violence, product tampering, and terrorist attacks) as well as a variety of other kinds of harm-inducing occurrences (Seeger, M.W., Sellnow, T.L., & Ulmer, R.R., 1998).

Distinguishing among various crises and disasters is important because the type of event influences the requirements for effective communication. Therefore, public relations (PR) practitioners should be savvy in addressing the issue accurately, timely and coherently to avoid ambiguity, panic among stakeholders, and general public.

Coombs (2007) identified and defined three categories of crises types: victim clusters (natural disaster, rumors, workplace violence, and product tampering); accidental clusters (challenges, megadamage, technical error accidents, and technical error recalls), and preventable clusters (human breakdown accidents, human breakdown product recalls, organizational misdeed with no injuries, organizational misconduct, and organizational misdeeds with injuries).

Coombs (2012) synthesized various typologies onto one table:

Crisis	Explanation
Natural disasters	When organization is damaged as a result of the weather or “Acts of God” such as earthquakes, tornadoes, floods, hurricanes, and bad storms.
Workplace Violence	When an employee or former employee commits violence against other employees

	on the organization's ground
Rumors	When false or misleading information is purposefully circulated about an organization or its products in order to harm the organization
Malevolence	When some outside actor or opponent employs extreme tactics to attack the organization, such as product tampering, kidnapping, terrorism, or computer hacking
Challenges	When the organization is confronted by discontented stakeholders with claims that it is operating in an appropriate manner
Technical error accidents	When the technology utilized or supplied by the organization fails and causes an industrial accident
Technical error product harm	When the technology utilized or supplied by the organization fails and results in a defect or a potentially harmful product
Human error accidents	When human error causes an accident
Human error product harm	When human error results in a defect or a potentially harmful product
Organizational	When management takes actions it knows may

misleads	place stakeholders at risk or knowingly violates the law
----------	--

Table 1: Coombs 2012 Crisis Typologies

The stages of a Crisis

According to Coombs (2007), the crisis lifecycle includes the following stages: (1) prevention, detecting warning signals and taking action to reduce the impact of crisis; (2) preparation, diagnosing problems and developing the crisis plan; (3) response, applying the preparation components and attempting to return to normal operations; and (4) revision, evaluating the crisis response to determine what was done right or wrong during the crisis management performance.

Ulmer & Sellnow (2002) identified: (1) pre-crisis stage includes crisis preparation and planning; (2) crisis comprises the trigger event and ensuing damage; and (3) post crisis includes learning and resolution.

The aforesaid macro approach appeared to be the basis of the notion of a crisis cycle. The notion of a crisis cycle implies that if an organization survives the stages of pre-crisis, crisis, and post-crisis, it will once again face the stage of pre-crisis, only better equipped to prepare for another crisis (Veil, 2011).

Fink (1986) described a crisis model through the metaphor of a medical illness with four stages. The first stage called *pro-dromal* includes warning signal of a potential crisis emerge. The second stage is *acute*, when trigger event and ensuing damage of the crisis occur. The third stage is *chronic* when lasting effects of the crisis continue and clean up

begins, and the last stage includes resolution, when the crisis is no longer a concern to stakeholders.

Mitroff (1994) suggests the five stage crisis management process. These stages include signal detection, when warning signs can be identified and acted upon to prevent a crisis; probing and pre-vention, when organizations should be searching for known crisis risk factors and working to mitigate potential harm; damage containment, the onset of crisis during which organizations try to limit the damage; recovery, when organizations work to return to normal business operation as soon as possible; and learning, reviewing and critiquing the crisis management process.

The three-stage crisis cycle is considered to be all encompassing, whereas the details that need to be addressed to prevent crisis are often overlooked (Veil, 2011). Mitroff (1994) and Coombs (2007) do not describe why these details are often overlooked, and learning is only included in the models as an important component for improving the crisis response after the crisis has occurred.

Essential Components of Crisis Communication

According to the definition of Benoit (1995) and Coombs (1999), crisis communication is more typically associated with public relations. Therefore, crisis communication response should be based on the understanding of the key elements of public relations.

Hon and Grunig (1999) highlighted and defined trust, commitment, satisfaction, control mutuality and dialogue as essential characteristics of public relations. Reynolds and Quinn (2008) stress that trust and credibility which are shown through empathy and caring, competence and expertise, honesty and openness, as well as commitment and

dedication are the key elements of effective crisis communication. Moreover, Ledingham and Bruning (1998) identified another four key dimensions in crisis communication: trust, openness, investment, and involvement.

The literature review shows that there are four main concepts that have to be emphasized in crisis communication. The importance of these four concepts have been emphasized by more than one scholar in the field, which are: trust, commitment, collaboration and interactivity.

Trust.

The concept of trust has many definitions. Castaldo, Premazzi, Zerbini (2010) defined trust as a strategic, relational asset for organizations. They emphasize that “trust is even more crucial when addressing ethical issues in business, because it provides the cultural basis and the “glue” that promote ethical behavior, and discourages deviation from ethical norms” (p.657). They created a dataset of 36 unique definitions of trust and ran a computer-aided content analysis using TextSmart (SPSS Inc.) to define the concept of trust within this dataset. Their content analysis allowed to offer an encompassing definition of the concept of trust. Based on the findings of their research, definition considers trust as an expectation (or a belief, a reliance, a confidence, and synonyms/aliases).

Morgan and Hunt (1994) defined trust as “confidence” in the other party’s “reliability” and “integrity”. Based on the definitions of trust offered by the aforesaid authors, Huang (2008) states that trust is related to risk, willingness, and confidence. The author states that in times of crisis, trust should emphasize organizations’ confidence in and willingness to build open communication with the other party.

Longstaff and Yang (2008) state that trust is one of the most important variables in effective crisis communication management, specifically, in times of natural disasters or health emergencies. Their research showed that there is a direct correlation between trust and an organization's preparedness and internal coordination of crisis communication and the effectiveness of its leadership.

Collaboration.

Health (2006) states that the best practices in crisis communication include partnerships with the public. The author argues that the crisis communication literature mainly focuses on image restoration rather than public relations as relationship management. The key is recognition of the value of dialogue. Also, this research emphasizes that during the crisis, organizations must demonstrate respect, concern, commitment, honesty, and openness. Organizations must communicate with compassion, concern, and empathy. The author also makes emphasis on the importance of commitment during the crisis. In this study, the concept of commitment implies the ability to be the first and best source of information.

Gray (1989) defines collaboration as, "a process through which parties who see different aspects of a problem can explore their differences and search for solutions that go beyond their own limited visions of what is possible" (p. 5). Abrahamson and Rosenthal (1995) state that collaboration is based on mutual benefit, cooperative actions, interdependence, reciprocity. Isbell and Goldstein (2006) argue that in times of crisis, specifically in case of disaster, working collaboratively helps create a jointly shared structure and vision of rules and guidelines to follow when responding to a crisis. In addition, they state that organizations' goal facing a natural disaster crisis or accident

should aim to establish guidelines, unique to that crisis, so that all the parties engaged in the crisis resolution share ideas of how to respond collectively.

Commitment.

Meyer and Allen (1984) argue that there are two types of commitment: affective commitment and continuance commitment. According to Meyer and Allen (1984), as cited in Huang (2008), affective commitment is; “a strong belief in and acceptance of the organization’s goals and values, 2) a willingness to exert considerable effort on behalf of the organization, and 3) a strong desire to maintain membership in the organization” (p.301). According to Meyer and Allen (1984), as cited in Huang (2008), continuance commitment in an organizational setting, as “the extent to which employees feel committed to their organizations by virtue of the costs that they feel are associated with leaving” (p. 301). There are researches that do not make specific distinction between affective commitment and continuance commitment (Huang, 2008).

Moorman, Zaltman, and Deshpande (1992) argued that commitment is a constant desire to maintain a valued relationship. Morgan and Hunt (1994) defined commitment to relationship as efforts to maintain relationship when the committed party believes the relationship is worth promoting and maintaining.

Interactivity.

Blattberg and Deighton (1991) argued that interactivity is the possibility for people to communicate directly, independent of time and place. Deighton (1996) emphasized two important aspects of interactivity: the ability to speak to someone and the ability to receive a reaction (and save it).

Koolstra and Mark (2009) emphasize that interactivity is one of the main concepts used to characterize information processing through new media. Unlike radio or television, new technologies such as the social networking sites, email and instant messaging provide users the possibility of interacting with the senders of messages and/or other user. According to Ha and James (1998: 461), as cited in Koolstra and Mark (2009) interactivity is “the extent to which the communicator and the audience respond, or are willing to facilitate, each other’s communication needs” (p.376). Heeter (1989), as cited in Koolstra and Mark (2009), specified six elements of interactivity:

“Availability of choice (people make selections in information), user effort (people participate actively), medium responsiveness (as a characteristic of how adequately media react on user input), monitoring (of ongoing communication), contributing to information and the facilitation of interpersonal communication” (p.377).

Koolstra and Mark (2009) argued that not all communication is interactive.

According to Rafaeli, as cited in Koolstra and Mark (2009):

“Communication is interactive only if messages are exchanged that are content-relevant and interrelated, and at least three interrelated messages are exchanged. If a person sends a message to another person (action), the reply of the receiver may be called a reaction; only in the case of a reaction to the reaction (both related to the first message) may the communication process be called interactive” (p.385).

Searson and Johnson (2010) state that digital communication has been used by public relations theorists and practitioners for its ability to stimulate dialogue between an organization and its stakeholders and customers. They argue that social media such as

Facebook or Twitter allow multi-directional interactive communication between an organization and its stakeholders and customers/public.

Crisis Response Strategies

Research in public relations has started to explore how and which crisis response strategies can be used to protect an organization's reputation during a crisis (Coombs & Holladay, 2004, 2005; Dean, 2004). During the crises, organizations can use different crisis response strategies to address the crisis. Crisis response strategies include certain actions the organization directs toward the crisis. (Allen&Caillouet, 1994; Benoit, 1995). A certain strategy chosen affects how stakeholders and public perceive the organization during a crisis (Coombs, 2012). A variety of crisis response strategies have been developed by researches. It is very important to be able to identify when to use a particular strategy for a specific crisis situation.

Crisis response strategies were first studied as apologia or use of communication to defend the organization's reputation (Ware & Vibbert, 1988). Benoit (1995, 1997) has developed a list of 14 image restoration strategies based on apologia and account research (Coombs, 2012). Allen and Caillouet (1994) developed a list of 20 impression management strategies that an organization might use. Based on the Crisis Situational Theory, Coombs (2012) developed crisis response strategies guidelines. Situational Crisis Communication Theory (SCCT) is based on the idea that PR practitioner should match crisis responses to the level of crisis responsibility and threat to reputation as a result of a crisis (Weiner, 1995).

Denial Posture	
Attacking the	Crisis manager confronts the person or group claiming something

Accuser	is wrong with the organization.
Denial	Crisis manager asserts that there is no crisis.
Scapegoat	Crisis manager blames some person or group outside of the organization for the crisis.
Diminishing Posture	
Excusing	Crisis manager minimizes organizational responsibility by denying intent to do harm and/or claiming inability to control the events that triggered the crisis.
Justification	Crisis manager minimizes the perceived damage caused by the crisis.
Rebuilding Posture	
Compensation	Crisis manager offers money or other gifts to victims.
Apology	Crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness.
Bolstering Posture	
Reminding	Tell stakeholders about the past good works of the organization.
Ingratiation	Crisis manager praises stakeholders and/or reminds them of past good works by the organization.
Victimage	Crisis managers remind stakeholders that the organization is a victim of the crisis too.

Table 2: Coombs's (2007) Crisis response Strategies based on Situational Crisis

Communication Theory

A Change of Media Environment

The use of the internet as a monitoring and crises management tool has been studied since the mid-1990s. Thomsen (1995), Johnson (1997) concluded in their studies that online databases, web pages, and other online resources can be useful in keeping track of emerging issues, and can help corporations to adjust policies and actions before a crisis occurs.

Living in the era of advanced internet-based technologies, organizations are facing new challenges related to accessibility and availability of information on the internet. New conditions require new techniques and tactics to handle the crisis effectively. In today's realities, PR specialists should be very skillful in using and understanding the internet medium. Social media networking platforms like Facebook, LinkedIn and Twitter have been changing the transmission and distribution of information at a rapid pace. This should be taken into consideration because the outcome of a crisis depends on the approach that public relations choose to this new environment.

Crisis communication practitioners should have policies in place for how organizations will communicate via social media. According to Marshal McLuhan (1996) "the medium is the message" because it is the medium that shapes and controls the scale and form of human association and action" (p.152). According to this statement it can be inferred that it is not only the content of the message that is important but also the way it is delivered. Thus, technology has the potential to directly determine usage and effects of the message (Seltzer & Mitrook, 2007). Regarding the technological potential, it can be stated that blogs and twitter fit better to the ideal two-way communication. Social media is often regarded as more authentic and credible (Seltzer & Mitrook, 2007.)

Social media has become a form of communication by providing a platform for the organization to build a dialogue and credibility. According to Laad and Lewis (2012), social media provides a unique and efficient way for crisis communicators to defend an organization's brand and reputation. In this context, organizations should ensure the clarity, transparency of their crisis communication messages to ensure smooth communication with its customers and stakeholders.

Social Media as a Crisis Communication Tool

With the advent of new web-based technologies specifically social networking sites like Facebook, Twitter, YouTube, etc., corporate communication has become more dialogic since social media sites are a good platform for information sharing, exchange, and dissemination of information. Social media is ubiquitous and stimulates collaboration. Organizations are increasingly implementing social media as a tool in their crisis management. Since the users of social networking sites are increasing every day, social media has become one of the most important tools for gathering, tracking, and monitoring the information about an organization during the crisis.

Liu (2010) argues that people seek crisis-related information in social media. Today, people require instant information in a crisis situation. If organizations are involved in monitoring the information that spreads throughout the internet, they can mitigate impact of the crisis by commenting, posting counter remarks, or refuting false information. (Laad & Lewis, 2012)

Bucher (2002); Seltzer & Mitrook (2007); Taylor & Perry (2005) argue that audience consider the internet to be the ideal source for having timely communication,

and interactive conversations. When crisis occurs, audience' social media usage increases significantly (Pew Internet & American Life (2011).

As opposed to traditional media, social media is considered to be a democratic way of communication which offers transparency and prompt discussion, and companies who attempt to control the information flow will be found dishonest and secretive.

Social Media presents the specific advantages in handling the crisis. It allows message to be sent worldwide, reach a global scale, and thus, heightens situational awareness. Another benefit of social media is that it provides a unique way for PR professionals to defend an organization's brand and reputation. Using blog gives an opportunity to monitor what kind of information is posted about the company. If there are ill-judged comments and false information about the company, it can use blog to refute inaccurate information by providing links to other credible sources. Blogs can serve as an effective and efficient communication tool. Blog facilitates both one-way and two-way communication, and both mass and interpersonal communication. Social Media channels such as Youtube, Facebook, and Twitter can be used to send important guidelines and information in the crisis situation (Laad and Lewis, (2012.

Social Media stimulates two-way, dialogic communication, thus, it helps build goodwill and credibility. Laad and Lewis (2012) emphasize that social media "gives a human voice to the situation at hand and accommodates public's emotional response. Social media is an excellent platform to create partnerships for sharing best practices, methods, and messages for crises" (p.14).

Additionally, crisis communication via social media such as blog, twitter, Facebook leads to higher reputation than crisis communication via traditional

newspapers. An organization that uses these new media to quickly react to a crisis might be perceived as more committed and honest; so the impressions and reactions might be based more on the medium than the actual message. (Schutz F., Utz S.& Göritz A., Public Relations Review (37), 2011)

To inform the public of crisis, the measures being taken to improve their safety along with making them aware of the steps they need to take in the crisis are the top priorities. Social Media allows fulfilling the mentioned goals effectively.

Social Media Communications	Traditional Media Communications
Internet and mobile-based means of communication (social networks, blogs, etc.)	Traditional means of communication (televisions, radio, newspapers, magazines)
Engaging people/audience	Informing people/audience
Unstructured sharing of information	Structured sharing of information
Two-way Communication (Dialogue)	One-way communication (Monologue)
Quick and instant information dissemination	Bound to fixed schedule, press deadlines
Talking to Consumers/Customers	Talking at Customers/Consumers
Public/Audience exercise control on the flow of	Government/Business/Organizations exercise control on the flow of

information	information
Decentralized information distribution process	Centralized information distribution process
Consumer sponsored communication	Organization sponsored communication
Fuelled by internet research, peers and friends opinions, preferences and recommendations	Fuelled by organizations' advertising/marketing campaigns
Trustworthy and transparent	Speculates and lacks transparency
Foster public involvement	No public involvement
Potentially dangerous as it can easily lead to rumors/gossip mongering	"Gatekeepers" prohibit irrelevant and false information
Practical, easy and inexpensive	Unpractical, complicated and expensive

Table 3: Social Media versus Traditional Media Communication. Laad and Lewis (2012)

Thus, in times of crisis, Social Media offers the ability to communicate quickly and effectively. It has changed the way people communicate and gather information about the crisis. Social Media is the right platform for people who are interested to participate, contribute their knowledge, experience. With many social media tools in place, social media definitely serves as the most powerful tool in crisis communication.

Use of Social Media (Survey)

In 2012, more than 250 organizations participated in a survey called Continuity Insights' designed to determine how social media platforms are being used as a communication crises tool. The results of the first in-depth survey are as follows:

- 52% plan to use social media to gather information during an event or crisis.
- 66% use a notification system, of which 77% believe that the system will be very useful or invaluable in getting messages out to employees during an event or crisis. 54% address the use of social media in their documented crisis communication plans.
- 32% of organizations use social media monitoring tools.
- 24% use mobile applications that incorporate business continuity/crisis communication plans or notification capabilities. For these applications, BlackBerry was the most widely supported device (84%), followed by iPhone/iPad (62%), Android (56%) and Windows Mobile (30%).

Additionally, crisis communication via social media such as blog, Twitter, Facebook leads to higher reputation than crisis communication via traditional newspapers. An organization that uses these new media to quickly react to a crisis might be perceived as more committed and honest; so the impressions and reactions might be based more on the medium than the actual message (Schutz F., Utz S.& Göritz A., Public Relations Review (37), 2011)

Content of the Crisis Response

There is still much to study about online environment, specifically, company-to-clients, organizations-to-public, and stakeholder-to-stakeholder interaction across

different types of crisis. Previous research mostly focused on functionality of social media and its use by PR practitioners (Valentini and Romenti, 2011). Studying messages, discourse, and certain frames created and disseminated in social media is of great importance for organizations and their decision to act during the crisis. Furthermore, Coombs (2012) argues that clear communication is at the core to ensure preventing and minimizing damage, maintaining the organization's operations, and repairing reputation.

Since social media allows interaction and rich environment for relations building by messaging, calendaring, computing, phoning, photography, and entertainment, the messages should be constructed wisely and address the main customers' issues and concerns during the crisis. Therefore, organizations should always think about the content of the messages to make their communication with customers smooth, transparent, and consistent.

Hofstede's Cultural Dimensions

Cultural differences are considered to be a key variable that influences the choice of public relations strategies and tactics (Kim & Kim, 2010). There are several studies focusing on how cultural differences affect the nature of public relations practices using Hofstede's cultural dimensions.

The Hofstede's cultural value dimensions include individualism/collectivism, power distance, masculinity/femininity, uncertainty avoidance, and long-term/short-term orientation (Hofstede and Hofstede, 2005). The dimension of individualism/collectivism means the level of valuing individuals over the collective entity. Individualists are free from collectivistic obligations, as cited in Kim & Kim, 2010, collectivists live in "a society in which people from birth onwards are integrated into strong, cohesive in-

groups’’ with collectivistic bonds’’ (p.487). Individualism/collectivism is the dimension used to differentiate Western and Eastern cultures. The USA, Australia, and Great Britain are individualistic cultures, while Japan, Korea, Taiwan, and Indonesia are collectivistic cultures (Hofstede and Hofstede, 2005). The meaning of the power distance concept is to explain the level of hierarchy in a society. Large power distance indicates that power positions are vertically stratified, creating different levels of power status. Malaysia, The Philippines, and Mexico are high-power-distance countries (Hofstede and Hofstede, 2005). Masculinity/femininity explains the role of gender in society.

The main characteristics of masculine cultures are assertiveness, toughness and focus on the material success, while feminine cultures are supposed to be ‘‘more modest, tender and concerned with the quality of life’’ (Hofstede, 2001, p. 297). Japan, Italy, and Germany have masculine culture, while Sweden, Norway, and The Netherlands have feminine cultures (Hofstede and Hofstede, 2005). Uncertainty avoidance refers to a culture’s level of tolerance with uncertainty. If there is less uncertainty that can be tolerated, a society has more rules and standards imposed on individuals. Greece, Japan, and France have high uncertainty avoidance (Hofstede and Hofstede, 2005). Recently, Hofstede added long-term and short-term orientations as the fifth dimension of cultural values (Hofstede and Hofstede, 2005). Long-term orientation means future-oriented values while short-term orientation represents past and present-oriented values. This fifth dimension is unique to the East Asian countries of China, Hong Kong, Taiwan, Japan, Vietnam, and South Korea (Hofstede and Hofstede, 2005).

According to Grunig, public relations include four historical models such as press agency/publicity, public information, two-way asymmetric, and two-way symmetric

models (Grunig and Hunt, 1984). The first two models represent one-way models. According to this model, the role of communication is only one way, from sender to receiver. The last two models understand communication as a two way process, which emphasize getting feedback from the public, acknowledging the importance of the public. Based on the Grunig's public relations and Hofstede's cultural typology, Vasquez and Taylor (1999) conducted research in the USA. Their study found a strong relationship between power distance and the one-way models, as well as collectivism and femininity with the two-way models; thus, it proved that culture and public relations models significantly tied together.

Wu et al. (2001) research findings, as cited in Kim & Kim, 2010, "showed a high correlation of the masculinity dimension with five of the models of public relations, as well as a strong correlation between collectivism and the two-way symmetrical model in Taiwanese public relations practices" p486.

Haruta and Hallahan's (2003) research found significant differences in crisis communications of airline crashes between Japan and the USA using Hofstede's five dimensions of culture. While in Japan public apology was desirable response to crisis, US culture did not use a public apology as a crisis communication response strategy due to litigation concerns. As cited in Kim & Kim, "The large power distance, high uncertainty avoidance, and masculine cultural characteristics of Japan tended to place one top person as the decisive leader and spokesperson in crisis situations" (p.486).

Research Questions

Based on the literature review, further research is needed to look at social media as a tool for effective crisis communication management with the focus on content

analysis of the crisis communication messages. This research will primarily focus on discourse, frames that could be detected in the crisis communication messages published on BP's press releases, and Facebook updates as well as TEPCO's press releases and tweets.

Therefore, it is very important to think about the content of the messages to make the communicational process with the public smooth, transparent, and consistent.

In this context, this study focuses on analyzing crisis communication messages using the content analysis of organizations' press releases, Facebook updates, and tweets. Furthermore, the study analyzes the crisis response strategies. Thus, the research questions are as follows:

RQ1: What frames can be detected in the crisis communication of British Petroleum (BP) and the Tokyo Electric Power Company (TEPCO) through the content analysis?

The research looks into the company's approaches in crisis communication to find whether they emphasize empathy with the public or they try to defend themselves in their messages. To be specific, based on the four main components in crisis communication, which are trust, commitment, collaboration, and interactivity, the study focuses on determining what themes were mainly used in the organizations' crisis communication messages. In case of BP, the content for analysis will be retrieved from the company's official website and official Facebook account. The most important reports on the correction actions and the whole situation in the Gulf of Mexico region were described in their official press releases. As far as the Japanese company is concerned, they do have their Facebook page and Twitter account, but during the crisis they used only Twitter. Their official Facebook page was created on August 26, 2012, whereas the crisis

happened on March 11, 2011. They have their Twitter and Facebook accounts in two languages – Japanese and English.

British Petroleum	<ul style="list-style-type: none"> • Facebook • Twitter • Flickr • You Tube • LinkedIn
TEPCO	<ul style="list-style-type: none"> • Facebook • Twitter

Table 4: PB and TEPCO’s Presence in Social Media

RQ2: How are BP and TEPCO different in the crisis communication response strategies?

The two companies are examples of two different cultures: individualistic [British Petroleum (UK)] and collectivistic [Tokyo Electric Power Company (Japan)]. The cultural element in the crisis situation is huge and it can have an impact on crisis mismanagement. In Japanese corporate culture it is not common to address problems publicly, preferring to solve them behind the scenes. Problem solving decisions rely on consensual processes as opposed to directives from top management. Consensus is a time consuming process and may slow an organization’s response to a crisis (Cato, 2010). In addition, Japanese organizations generally have a different approach to public relations, focusing their efforts more on opinion leaders than on the general public.

Definition of Terms

Public Relations

According to the Encyclopedia Britannica public relations, byname PR, aspect of communications including the relations between an entity subject to or seeking public attention and the various publics that are or may be interested in it. Public Relations (or PR) is defined as a communication process to build and maintain mutually beneficial relationships between organizations and their publics.

Crisis Communication

As defined by Coombs (1999), crisis communication is a set of communicative tactics and strategies when an organization faces crisis and needs to protect its reputation. These strategies include messages that are integrated and critical elements of a four-part overall crisis management process that includes prevention, preparation, performance and learning.

Crisis Communication Channels

According to Coombs (2012), crisis communication channels are news media, advertising, Web sites and social media.

Crisis Frame

Coombs (2012) defines crisis frame as the way a particular issue or problem is presented, the meaning ascribed to the crisis. The certain frames affect the interpretation of the crisis.

Social Media

Solis (2010) defined social media as the democratization of information by transforming people from content readers into publishers. It is the shift from a broadcast

mechanism, one-to-many, to a many-to-many model, including the means of interaction among people in which they create, share, and exchange information, ideas, thoughts in virtual communities and social networking sites.

Twitter

According to the definition of Jack Dorsley, creator of Twitter, Twitter is a real-time information network that allows its users to send and read text-based messages, also known as “tweets”.

Facebook

According to the definition in Encyclopedia Britannica, Facebook is American company offering online social networking services. Facebook was founded in 2004 by Mark Zuckerberg, Eduardo Saverin, Dustin Moskovitz, and Chris Hughes. Facebook became the largest social networking site in the world that offers instant messaging, photo sharing.

Flickr

According to the Encyclopedia Britannica, Flickr is a photo-sharing Web site owned by Yahoo! Inc.. Flickr is an ad-supported service, free to the general public, that allows users to upload digital photographs from their own computers and share them online with either private groups or the world at large.

YouTube

According to the Oxford Dictionary definition, YouTube is video-sharing website.

Press-release

In Oxford Dictionary, press-release is defined as an official statement message by a large organization, a political party or government department, to give information on a particular matter.

Content Analysis

According to Frey, Botan, and Kreps (2000), content analysis is conducted based on the use of systematic, replicable technique for compressing many words of text into fewer content categories.

Crisis Response Strategies

Coombs (2012) defines crisis response strategies as the actual responses an organization uses to address a crisis.

Chapter Three: Research Method

Method of Analysis

The verbal content of the crisis communication messages was analyzed through the Content Analysis (CA) framework. CA is a powerful toolkit to learn and understand all the aspects of communication process. It provides not only the tool for quantitative study of media contents, but also qualitative studies as well. Along with using the internet to retrieve the content to be analyzed, the corpus-based online FrameNet lexical database was used for analysis. The FrameNet project is a lexical database of English based terms with annotated examples of how words are used in actual texts. The use of this database was meant to find a set of terms that share a similar semantic meaning of the four concepts applied to categorize the content.

Units of Analysis

Several units of content analysis were studied to collect all necessary data to answer the research questions. The units of analysis include press releases posted on the organization's official site, BP's Facebook updates, and TEPCO's tweets. Units of content analysis of BP's crisis communication messages included press releases and Facebook updates. Only Facebook updates were analyzed since currently there is no possibility to access the company's tweets on the official Twitter account. Despite the fact that the Library of Congress has an archive of all the tweets of BP, a response to an email sent by the researcher requesting access to the BP's tweets informed that the tweets are not available to the public. There are other websites where it is possible to search for old tweets. One of them is Topsy.com but this site goes back to a certain date

so the more tweets there are - the less far it is possible to go back in the archive. The oldest tweet was possible to access is dated November 27th, 2011.

For TEPCO's content analysis, press releases and tweets were taken as units of analysis. The crisis happened on March 11, 2011. The analysis covers the period from March 11, 2011 until December 31, 2011. TEPCO joined Facebook only on August 26, 2012 whereas this research focuses on the messages posted in 2011. Considering that the organization used only Twitter during the mentioned period, only their tweets were analyzed.

Sampling

British Petroleum

The crisis for BP started on April 20th, 2010. On July 15th 2010, the well was captured which was a major event that set the beginning of the end of the crisis. However, it is hard to claim that the crisis ended on that date or a later date. As a matter of fact, up to 2013, BP still makes advertisements where the recovery efforts in the Gulf of Mexico are stressed¹. Since there is no possible way to determine a clear date of the end of the crisis, this research looked at a specific large period of the crisis in order to obtain a representative sample for analysis. The purpose of looking at a longer period was to identify the frames in the crisis communication as well as the crisis response strategies. The period selected is from April 20th, 2010 until December 31st, 2010. During this period, BP posted 157 press releases and more than 1,200 Facebook updates. Since a longer span of time and massive resources would be needed to analyze the 175 press

¹ Based on the recent video titled "Committed to the Gulf. Committed to America" posted on February 22, 2013 on their YouTube channel.

releases and the 1,200 Facebook updates, a non-random convenient sampling method was followed to select the samples for analysis for this study.

The first set of samples represents 60 press releases; the second set of samples includes 70 Facebook updates. The press releases were gathered from the BP's official web site posted from April 20 to December 31, 2010. BP's Facebook updates were retrieved from the company's official Facebook account and covered the same time lapse. The 60 press releases and the 70 Facebook updates were selected for analysis in the following manner:

- Selection of two to six press releases/Facebook updates from each month throughout the period selected for analysis.
- The press releases/Facebook updates came from different periods of the month: beginning, middle, and the end of the month.

TEPCO

Similar to BP, it is difficult to determine the end of the crisis for TEPCO. The explosion took place in March 11th, 2011. However, TEPCO still informs of the efforts being taken to mitigate the impact of the incident.² Since it is impossible to determine the date of the end of the crisis, this research looked at a specific period of the crisis in order to obtain a representative sample for analysis. The purpose of looking at a longer period was to identify the frames in the crisis communication as well as the crisis response strategies. For TEPCO, the crisis started on March 11th 2011. The period selected covers March 11th to December 31st, 2011. During the given period, the organization posted 7-10 press releases every day which makes a total of 3,230 press releases to date of December

² Based on the press-releases posted in 2013.

31st, 2011. Unlike BP, TEPCO joined Facebook only on August 26, 2012. Yet, it was possible to access TEPCO' tweets posted from June 23, 2011. Since TEPCO did not have a Facebook account during the period selected for analysis, tweets from the company's official twitter account were analyzed. TEPCO posted 311 from June 23, 2011 (the oldest tweet that it is possible to access on their official Twitter account) until December 31, 2011.

Since a longer span of time and massive resources would be needed to analyze the 3230 press releases and the 311 tweets, a non-random convenient sampling method was selected. 60 press releases posted by TEPCO from March 11 to December 31, 2011 and 65 tweets posted from June 23 to December 31, 2011 were analyzed. The press releases were taken from the TEPCO's official website and the tweets were retrieved from the company's official Twitter account. TEPCO posted press releases and tweets in English and Japanese. The messages posted in English were analyzed. The press releases were selected for analysis in the following manner:

- Selection of six press releases from each month during the period selected for analysis
- The six press releases selected from each month came from different periods of each month: 2 press releases from the beginning, 2 press releases from the middle, and 2 press releases from the end of the month.

The tweets were selected in the following manner:

- Selection of nine tweets from each month during the period selected for analysis

- The nine tweets selected from each month came from different periods of the month: 3 tweets from the beginning, 3 tweets from middle, and 3 tweets from the end of the month.

Context Unit

For social media content, status update and tweets were the context units. For press releases, sentences are the context units.

Categories

The categories are as follows: trust, commitment, collaboration, and interactivity. The analysis of press releases posted on the two companies' official web sites, BP's Facebook updates, and TEPCO's tweets were analyzed based on the semantic analysis of each category. The semantic analysis was conducted using online thesauri and FrameNet lexical database.

Coding

Based on the literature review regarding the crisis communication components, the aforesaid coding categories were applied to analyze the organizations' crisis communication messages. A coding sheet was developed (Appendix A). The coding sheet includes certain words and word expressions referring to each category based on the semantic analysis of the categories: trust, commitment, collaboration, and interactivity. The table below shows which words were used for each category.

Trust	Commitment	Collaboration	Interactivity
Assurance	Commit	Associate.n,	Dialog.n

Certainty	Consent	Collaborate.v	Communicate.v
Certitude	Covenant	Confederate.n,	Communication.n,
Confidence	Oath	Cooperate.v	Consultation.n
Conviction	Obligations	Cooperation.n	Discuss.v
Credence	Pledge,n	In League	Discussion.n
Credit	Pledge,v	In cahoots	Exchange.n
Dependence	Promise.n,	Jointly.adv	Contact
Entrustment	Promise.v,	Partner.n,	Comment
Expectation	Swear.v,	partner.v Team	Share
Faith	Undertake.v,	up.v Together.adv	Follow
Truth	Undertaking.n,	Work together.v	
Hope	Volunteer.v,	Bring together	
Positiveness	Vow.n, vow.v	Work together	
Reliance	To secure	Full cooperation	
Sureness	Claim responsibility	Work in	
Believe	To be determined	coordination with	
Faith	Reaffirm	Work hand in	
Reliability	commitment	hand	
Reliable		Work closely	
Trustworthy.		Establish	
Certain,		partnership	
certainty		To engage	
Confidence			

Confident			
Convinced			

Table 5: Concepts and Related Words

Coding Reliability

Since the analysis was done by one person, there is no possibility to measure coding reliability. It is necessary to have another person's content analysis results to be able to calculate reliability.

Statistical Analysis

Regression analysis was used as a statistical tool for analyzing multifactor data. This method allows investigation of functional relationships among variables. Regression analysis is viewed as a set of data analytic techniques that examine the interrelationships among a given set of variables. Poisson regression was used to predict the sentence count for each frame with the companies (TEPCO and BP), counting the total number of sentences in each press release in the sample collected. Poisson regression analysis allowed obtaining relative risk (RR) for one company versus another company. Relative risk is a ratio of the probability of the event occurring in the exposed group versus a non-exposed group.

Chapter Four. Findings

Introduction and Context

This study analyzed and explored four frames: trust, commitment, collaboration, and interactivity that were employed in BP's and TEPCO's press releases, Facebook updates, and tweets. This study further analyzed the crisis response strategies the two companies used in their crisis communication following the Deepwater Horizon oil spill and Fukushima Daiichi nuclear plant disaster.

A content analysis was conducted to explore the certain frames used by BP and TEPCO in their press releases to deal with the crises. This study examined BP's crisis communication strategy through press releases and Facebook usage by analyzing the frames that were used. The research also analyzed TEPCO's press-releases and tweets to identify the frames in the organization's crisis communication and crisis communication strategies used by the organization. 60 of BP's press releases and 80 Facebook updates were analyzed. 60 of TEPCO's press-releases and 65 tweets were taken for the content analysis.

Findings

The findings of the research showed that BP attempted to provide information on the company's efforts to resolve the oil spill crisis as the messages emphasized that BP made every effort to manage the crisis. The research found that BP aimed to show the public that it did not deny responsibility for the crisis, with no intentions to avoid this responsibility.

For TEPCO's crisis communication messages, it was found that the company made a focus on the corrective actions being taken. Almost in every press release

TEPCO expressed apologies and the company appreciation to the public who followed the instructions on how to save electric energy during the disaster. Contrary to BP, TEPCO did not focus on the financial losses incurred during the crisis. In fact, TEPCO’s press releases did not include any mention of the costs of the corrective actions, operations and compensation as BP did.

British Petroleum

Press releases.

Through the content analysis of BP’s press releases, this study found that the “commitment” was the dominant frame. A new frame was identified and labeled as “financial losses” while conducting this content analysis. The “financial losses” frame includes sentences where the cost of corrective actions, the amount of the compensation to victims of crisis, as well as the company’s losses were mentioned. These sentences contain the words such as payments, cost, losses, compensation, advances, money, amount of money, sum of money.

Trust	Commitment	Collaboration	Interactivity	Financial Losses (Compensation)
4.82%	31.51%	10.61%	5.79%	47.27%

Table 6: Content Analysis Results – Percentages of the frames- BP Press- Releases

The content analysis showed that BP demonstrated commitment. Indeed, BP did not fail to emphasize the efforts to resolve the crisis by emphasizing the corrective actions such as the “relief well installation” to prevent the BP oil spill. The phrases such as “BP’s commitment to complete our work and restore the damage done to the Gulf of Mexico”, “to satisfy certain obligations arising from the oil and gas spill”, “We are

determined to do everything in our power”, “encouraging excellence in safety and risk management”, “we are confident in our ability to tackle this spill”, “We are doing absolutely everything in our power to eliminate the source of the leak and contain the environmental impact of the spill”, “resolve the situation as rapidly, safely and effectively as possible ” were repeatedly used in all press releases analyzed. The press releases contained BP’s CEO Tony Hayward speeches in which he was stressing the company’s commitment to ensure the safety of the people. The CEO constantly made clear that “safe and reliable operations are his number 1 priority for BP and the company has a very strong record of safe and reliable operations in the Gulf of Mexico.” “We will stand by our obligations,” was a famous expression that the CEO included in his speeches as quoted in the press releases.

Along with the “commitment” frame, the company made great emphasis on the financial losses and compensation payments they made to victims. The purpose of the crisis communication strategy can be explained in the following way. On the one hand, it could be a way to show that the company cared about the people who suffered, and, on the other hand, to prove that the company was also a victim in the crisis. The following are examples on how financial losses were framed;

“The cost to date of the response amounts to about \$350 million, including the cost of spill response, containment, relief well drilling, commitments to the Gulf Coast States, settlements and federal costs”

“The cost to date of the response amounts to about \$450 million, including the cost of spill response, containment, relief well drilling, commitments to the Gulf Coast States, settlements and federal costs.”

“In total over 19,000 personnel from BP, other companies and government agencies are currently involved in the response to this incident. So far about 19,000 claims have been filed, and some 8,000 payments have been made”

“So far 26,000 claims have been filed and 11,650 payments have already been made. BP has received over 96,000 calls into its help lines to date”.

“The cost of the response to date amounts to about \$930 million, including the cost of the spill response, containment, relief well drilling, grants to the Gulf states, claims paid and federal costs. It is too early to quantify other potential costs and liabilities associated with the incide. The cost of the response to date amounts to about \$990 million, including the cost of the spill response, containment, relief well drilling, grants to the Gulf states, claims paid and federal costs.”

“BP today announced it is providing \$10 million to the National Institutes of Health (NIH) under its Gulf of Mexico Research Initiative (GRI) to support a study of potential public health issues relating to the Gulf oil spill and other spill-related health research”.

Among those identified four concepts, “the collaboration” frame was the most common frame used in BP’s press releases. BP always focused on cooperative efforts with other agencies including National Incident Commander, United States Coast Guard, Minerals Management Service, Louisiana Department of Environmental Quality, National Oceanic and Atmospheric Administration, US Fish and Wildlife Service, Louisiana Wildlife and Fisheries, and Marine Spill Response Corporation, as well as a group of volunteers.

Apart from the frames described, BP stressed the importance of rebuilding trust. Yet, only 4.82% of the press releases used this frame. The press release dated September 29, 2011 mentioned Bob Dudley's statement, President and Chief Executive Officer of BP's Gulf Coast Restoration Organization: "I am putting in place to rebuild trust in BP – the trust of our customers, of governments, of our employees and of the world at large. That trust is vital to the restoration of shareholder value which has been so adversely affected by recent events."

Last, the interactivity frame was emphasized by BP in different ways. Firstly, BP announced schedules of online sessions for discussions and press conferences. Secondly, BP posted live videos of the efforts to stop the oil spill in the Gulf of Mexico. The emphasis on the importance to talk to the public proved BP's willingness to be interactive with the public. The sentences that emphasize interactivity are as follows:

"The first two Wave Glider vehicles will be deployed to the vicinity of the Macondo well; a second pair will be deployed in September. Data collected by the vehicles will be relayed via satellite and posted on a public website.

BP will continue to provide a live video feed from the seabed through the diagnostic testing and top kill, if undertaken. Throughout the diagnostic process and top kill procedure very significant changes in the appearance of the flows at the seabed will be expected. These will not provide a reliable indicator of the overall progress, or success or failure, of the top kill operation as a whole. Note: A video describing progress of the relief wells is now available. A telephone media briefing on this subject by Kent Wells, BP senior vice president, Exploration and Production, will be held at

15.30BST, 09.30 CDT, June 28. Details of this call are available on www.bp.com.”

Press Release date: 24 May 2010.

Facebook updates

It is important to note that BP used Facebook as another channel of the crisis communication. Most of their Facebook updates were not linked to the press releases posted on their official site. BP posted the latest information on the clean-up operations, water and air quality testing, oil containment updates, and the amount of oil barrels collected. The four main frames applied to the Facebook updates were presented in the following percentages:

Trust	Commitment	Collaboration	Interactivity	Financial Losses (Compensation)
1.74%	20.87%	5.22%	59.13%	13.04%

Table 7: Content Analysis Results –Frames Percentages- BP’s Facebook updates:

Similar to press releases, BP paid much attention to the compensation actions. The following screenshot is known as “event” in “timeline” in Facebook world:



Figure A: Facebook Update-BP-Example1

BP organized Q&A sessions, technical briefings to communicate with the public regarding the progress of corrective actions in the Gulf of Mexico region. This interactive frame was detected through the posts below:



Figure B: Facebook Update-BP-Example 2



Figure C: Facebook Update-BP-Example 3

The “interactivity” theme appeared to be dominant in BP Facebook updates. Facebook by definition is an interactive tool that allows users to share the content, post comments, post videos and pictures. BP used Facebook not just as a one-way communication tool, but as a platform for stimulating discussion, and engaging with the public by means of setting up online sessions.

Thus, it is important to note, that BP attempted to update the public about what the company was doing to resolve the oil spill crisis and how BP was making every effort to manage the crisis. BP provided information to the public that described how the company would correct the oil spill problem, and how it would compensate the victims in the future.

TEPCO

Press Releases.

Unlike BP, TEPCO mainly used press releases to inform about the accident, its consequences, and the progress of corrective actions. Although TEPCO used Twitter, more than 90% of tweets were linked to the company's press releases posted on their official site.

The research found that the “commitment” and “collaboration” themes were mainly used in TEPCO's press releases. TEPCO consistently expressed their apologies. Indeed, the first paragraph of all press releases related to the crisis started with the company's apologies. Yet, TEPCO's press releases did not include any contact information or any information about online Q&A sessions to be organized for the public. TEPCO attempted to sound empathetic and thoughtful. The following themes were consistently used in the press releases.

Trust	Commitment	Collaboration	Interactivity	Financial Losses (Compensation)
2.27%	81.82%	25.00%	0.00%	0.00%

Table 8: TEPCO-Press-Releases-Frames Percentages

The following sentences were used to show its commitment, empathy and apologies:

“We will make every effort to enable evacuees to return to their homes and for all citizens to be able to secure a sound life”. “We will continuously conduct...”

“We will make every effort to enable evacuees to return to their homes and for all citizens to be able to secure a sound life”. “We deeply apologize for the anxiety and inconvenience caused”. “We will make every effort to enable evacuees to

return to their homes and for all citizens to be able to secure a sound life”. “We sincerely regret causing anxiety and inconvenience to our customers and the society caused”.

It is important to note that TEPCO used highly technical and professional language in its press releases. Such terms as “off-site transmission line”, “suppression pools”, “water surge-tanks”, “suppression chamber”, “primary containment vessel” were used without any definition or any visual materials for the public to understand what the press releases informed about. Obviously, people who work in the field of atomic energy are able to grasp and follow this information. However, the average public audience who are not professionals in the field could find this information to be hard to understand. It should be noted that press releases are supposed to inform the public about the crisis by delivering professional or technical terms into concepts that the stakeholders can readily grasp. PR professionals should think about the audience considering demographics, level of education, etc. In this case, TEPCO press releases appeared not to be effective in terms of informing the public about the crisis. TEPCO posted up to 10 press releases a day with the abundant use of technical description which did not allow the public to stay focused on their progress in the corrective actions.

They attempted to emphasize commitment and responsibility for the actions they were taking to deal with the crisis.

Tweets.

The four main frames applied on the Tweets analyzed were presented in the following percentages:

Trust	Commitment	Collaboration	Interactivity	Financial Losses (Compensation)
2.27%	81.82%	25.00%	0.00%	0.00%

Table 9: Content Analysis Results –Frames Percentages–TEPCO’s Tweets

The dominant focus of the tweets was to provide information about the electric power usage as these examples show:



Figure D: TEPCO Tweet Example 1

Also, most of the tweets were linked to the press releases posted in TEPCO’s website.

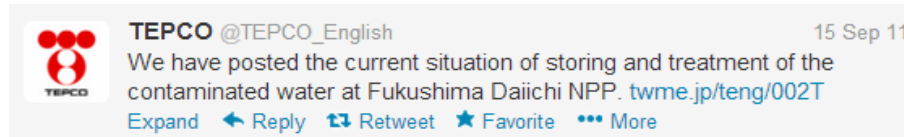


Figure E: TEPCO Tweet Example 2

Test of Research Questions

RQ1: What frames can be detected in the crisis communication of BP and TEPCO through the content analysis?

The content analysis identified that the main themes for BP’s press releases were commitment and collaboration. Also, the emphasis was made on the financial losses incurred during the crisis along with the cost of operation, and compensation to victims. BP’s Facebook updates showed the company’s attempt to involve the public in

discussion, collaboration, knowledge and experience sharing by means of setting up online technical briefings.

Commitment and collaboration appeared to be the main themes in TEPCO's press releases. The organization expressed its apologies in press releases. Their press releases contained many technical and professional terms which could cause a lack of understanding and awareness of the actions they were taking to deal with the crisis.

Statistical analysis showed that the relative risk of observing the "trust" sentences, "commitment" sentences, "collaboration" sentences are significantly different between TEPCO and BP.

RQ2: How are these two organizations different in the crisis communication response strategies?

The two companies are examples of two different cultures: individualistic [British Petroleum (U.K)] and collectivistic [Fukushima Daiichi Nuclear Plant (Japan)]. As an individualistic culture, BP focused on their achievements in dealing with the crisis such as updates on the amount of the oil collected, and the use of cutting edge technologies that helped fulfill the most difficult operations.

This Press release dated August 25, 2010 is an example of many press releases that showed individualistic characteristics.

"The unique technology allows deployment of sensors persistently, for the long term, to monitor key environmental variables, including: water quality – detection of any emulsified, dissolved and dispersed oil in water; phytoplankton (chlorophyll); colored, dissolved oxygen matter (CDOM) and other scientifically

useful variables marine mammal vocalizations weather and water temperature data”.

Expressions such as “we are determined”, “we are strongly committed”, “we are aggressive in attacking any part of the spill”, were heavily used and repeated. BP stresses the main achievements by creating events on their official Facebook page as well as pointing them out in their press releases:

“BP announced today that the MC252 well appears to have reached a static condition -- a significant milestone. “This is a significant milestone in the response to the Deepwater Horizon tragedy and is the final step in a complex and unprecedented subsea operation – finally confirming that this well no longer presents a threat to the Gulf of Mexico,” said Tony Hayward, BP group chief executive”.

In addition, the emphasis on an individualistic approach was made by means of using the expression “personally”, as well as personal pronouns. The sentence below was taken from BP’s press release dated June 4, 2010:

“This step will ensure that we maintain focus on both the massive response effort and our duties towards our ongoing businesses," said Hayward. "I remain personally committed to making this right.”

It is also important to note that BP emphasized materialistic aspects such as the amount of the compensation to victims, and the cost of operations. The following sentences were taken from the press releases posted on May 25, 2010 and May 28, 2010:

“BP today announced a commitment of up to \$500 million to an open research program studying the impact of the Deepwater Horizon incident, and its associated

response, on the marine and shoreline environment of the Gulf of Mexico. In total over 19,000 personnel from BP, other companies and government agencies are currently involved in the response to this incident. So far 15,000 claims have been filed and 2,600 have already been paid. BP has also received almost 60,000 calls into its help lines. “The cost of the response to date amounts to about \$930 million, including the cost of the spill response, containment, relief well drilling, grants to the Gulf states, claims paid and federal costs. It is too early to quantify other potential costs and liabilities associated with the incident”.

Unlike BP, TEPCO belongs to the collectivistic culture where collective entity is valued over individuals. TEPCO’s press releases did not include any citation from officials, CEOs, personal claims or statements. Their messages contained many professional terms without specifying or defining them. The abundance of technical terms did not allow others to follow the information regarding progress of the actions taken to mitigate the negative consequences of the crisis.

“We started injection of sea water at 8:20 pm, March 12th, and then boric acid which absorbs neutron into the reactor afterwards. At approximately 2:30 am, March 23rd, we started the injection of sea water into the reactor from feed water system. After that, the injection of freshwater was started from 3:37 pm on March 25th (switched from the seawater injection). At 8:32 am, Mar 29th, transfer from the firefighting pump to a temporary motor driven pump was made. From 10:42am to 11:52am on April 3rd we temporarily switched the pump to the firefighting pump to inject fresh water to use power through off-

site transmission line. We're now injecting fresh water to the reactor by a motor driven pump powered by off-site transmission line”.

As far as crisis responses strategies are concerned, based on the analysis, it is possible to conclude that BP used justification, compensation and victimage strategies.

Justification strategy is used when organizations’ managers try to minimize the damage caused by the crisis or convince that there were no serious damages or injuries. BP explained fishing closures, as “precautionary measures”. BP attempted to minimize further damage by informing how the company was going to take responsibility, and by focusing on what it was doing to manage the oil spill problem within its press releases.

The compensation strategy was used through showing that BP accepted responsibility by expressing great concern for victims by offering compensation. Furthermore, BP did not fail to demonstrate that it is also a victim of the crisis by mentioning the cost of operations to correct the oil spill along with the amount of losses the company had to deal with. This type of strategy is called victimage. It is important to stress that regret and apology were extremely rare in BP crisis communication.

In the case of TEPCO, the company did not provide any specific data about the real damage along with a timeline of their corrective actions. TEPCO posted their evaluation results to prove there is not any danger to the environment and people’s lives, as this quote example from a press release shows:

We evaluate the impact on the discharge of the low radioactive wastewater to the sea as approximately 0.6 mSv per year per an adult if an adult eats adjacent fish and seaweeds everyday. The amount (0.6 mSv of effective radioactive doses per year) is one-fourth of annual radioactive

dose to which the general public is exposed from nature.

TEPCO extensively used apology and regrets in their messages as opposed to BP. The Tweets posted by TEPCO provided information on forecasted electricity during peak hours.

Crisis Communication Strategies

The following table summarizes the two companies' crisis response strategies. This table is based on the frames found as explained earlier vis a vis the frequency of these frames.

British Petroleum	Diminish Strategies
	<ul style="list-style-type: none">• Justification
	Rebuild Strategies
	<ul style="list-style-type: none">• Compensation• Victimage
TEPCO	Diminish Strategies
	<ul style="list-style-type: none">• Justification
	<ul style="list-style-type: none">• Apology

Table 10: Crisis Response Strategies: TEPCO and BP

Chapter 5: Conclusion

This study was aimed at analyzing and exploring the presence of the four frames in the crisis communication of two large companies. The four frames looked at were trust, commitment, collaboration, and interactivity. The study looked for the presence of these frames as they were employed in BP's and TEPCO's press releases, Facebook updates, and tweets. This study further analyzed the crisis response strategies of the two companies in their crisis communication following the Deepwater Horizon oil spill and Fukushima Daiichi nuclear plant disaster.

BP dealt with the Gulf oil spill crisis that occurred in April 2010. In 2011, there was an explosion caused by the tsunami at the Fukushima Daiichi power plant. A content analysis was conducted to explore how certain frames were used by BP and TEPCO in their press releases to deal with the crisis. This study examined BP's crisis communication strategy through press releases and Facebook usage by analyzing the frames that were used.

The findings of the research showed that BP attempted to provide information on the company's efforts to resolve the oil spill crisis, and BP emphasized that they made every effort to manage the crisis. Also, the research found the BP aimed to show the public that they did not deny responsibility for the crisis as well as they did not have intentions to avoid responsibility of the oil spill crisis.

The study aimed to answer two research questions as follows: What frames can be detected in the crisis communication of BP and TEPCO through the content analysis? How are these two organizations different in the crisis communication response strategies? The content analysis identified that the main themes for BP's press releases

were commitment and collaboration. Also, the emphasis was made on the financial losses incurred during the crisis along with the cost of operation and compensation to victims. BP's Facebook updates showed the company's attempt to involve the public in discussion, collaboration, knowledge and experience sharing by means of setting up online technical briefings.

Commitment and collaboration appeared to be the main themes in TEPCO's press releases. The organization expressed its apologies in press releases. Their press releases contained many technical and professional terms which could cause lack of understanding and awareness of the actions they were taking to deal with the crisis.

The two companies are examples of two different cultures: individualistic (British Petroleum (U.K)) and collectivistic (Fukushima Daiichi Nuclear Plant (Japan)). As an individualistic culture, BP focused on their achievements in dealing with the crisis, such as updates on amount of the oil collected and use of cutting edge technologies that helped fulfillment of the most difficult operations. Furthermore, BP also showed its consideration of the issues regarding local citizens and jobs lost. BP tried to show its concern for the needs of local fishermen and others directly affected by the spill.

In addition, BP succeeded in showing that it did not want to flee from the responsibility of the oil spill crisis. Yet, this study suggests the company's communication messages through press-releases could be better if the company displayed its responsibility in a crisis situation with emotional appeals.

TEPCO expressed its commitment through description of the actions they were taking. Due to the fact that the company used professional and technical terms, the press-releases can be hard to understand. Obviously, there is a certain set of terms used in any

professional field, but PR professionals should be able to adjust style of the messages, taking into consideration target audience needs and peculiarities.

TEPCO messages appeared to be less effective in comparison with BP. BP was criticized for using old methods of communication in new media, but the analysis showed that the company did not fail to use Facebook as a tool of interaction with the public through Q&A on-line sessions and technical briefings. BP also used specific professional terms without definitions, but in comparison with TEPCO, its messages proved to be easier to follow. Unlike BP, in the press-releases analyzed, TEPCO never mentioned that the company organized on-line sessions or posted live video of the operations the company was doing to reduce the impact of the disaster.

Consequently, this study suggests, on a practical level, that public relations practitioners should avoid using highly technical and professional languages without clearly defining the terms. This study also recommends that public relations practitioners consider its target audience while preparing press releases dealing with crises. Additionally, to avoid miscommunication or discrepancy between what is said in the communication messages and what is actually done by the company to solve the crisis, public relations professionals need to communicate with the organizations' departments directly involved in the corrective actions. Since social media encourages a two-way communication, public relations practitioners should make sure to provide dialogic communication and stimulate discussion. People become anxious, concerned and stressed in times of crisis, specifically, natural disasters. This is to say, TEPCO should have been more transparent about the actions they were taking to avoid the risk of ambiguity. Undercommunication results in ambiguity and mistrust of the company among

stakeholders. Apart from the abovementioned, this study suggests not emphasizing a certain topic in crisis communication messages, for example, not focusing on only on financial losses or apology. The content of the messages should be broad yet emphasize the willingness and commitment of an organization to resolve the crisis.

Limitations

As a limitation, this study did not analyze crisis communication messages at different stages of the crises. The study mainly focused on the response stages of the crises.

Considering the amount of data, the sample size is not large enough. BP posted more than 1,200 updates on the company's official Facebook page and 175 press-releases on its official site from April 20 to December 31, 2010. TEPCO posted 3,230 press releases and 311 tweets from March 11 to December 31, 2011. This study analyzed 60 press-releases posted by BP and TEPCO, 70 of BP's Facebook updates, and 65 of TEPCO's tweets.

Additionally, it should be noted that the content analysis was done by one researcher; therefore, coding reliability cannot be measured.

Recommendations

For future research, this study suggests increasing sample size to identify and define other themes, specifically, for TEPCO's messages. Since this study did not include an analysis of TEPCO's Facebook updates, another suggestion is to look at their Facebook messages and see if the organization uses Facebook as an additional way to inform about the disaster or it uses it for stimulating more interaction with the public by posting live video, organizing on-line briefings, chats, or live discussion with the public.

Future studies are needed to analyze TEPCO's press releases, Facebook updates and tweets both in English and Japanese. Additionally, it is suggested that future research look into crisis communication messages at different stages of the crisis.

It is also recommended that future studies be conducted on audience perceptions to the crisis communication messages provided by BP and TEPCO. Since this study analyzed if culture influenced the choice of the crisis communication messages content and crisis communication strategies, it is recommended that follow up studies analyze if there are differences in audience reactions and perceptions to the crisis communication messages in the Japanese and American societies.

Timeline

Task	Weeks	Finish Task by
Thesis Statement	One week	July 30, 2012
Literature Review	Three weeks	July-August, 2012
Thesis Proposal	Three weeks	September 10, 2012
Methodology Design	Three Weeks	November 1, 2012
Proposal Defense		Estimated Date: January 8, 2013
Sampling Selection	Two weeks	January 20, 2013
Data Analysis	Four weeks	January 30, 2013
Write up	Two weeks	February 15, 2013
Complete First Draft	One to two week	March 19, 2013
Submit Final Draft		April 1, 2013

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Appendix A

CODING SHEET

Introduction

This sheet is designed to determine what companies emphasize in their crisis communication messages, thus, analyze their crisis communication by focusing on four categories such as trust, collaboration, commitment, and interactivity. The study looks into the analysis of how the two companies, British Petroleum and Tokyo Electric Power Company (TEPCO), address these four important components of PR during the crisis.

For the British Petroleum crisis communication messages analysis, non-randomly selected press releases, Facebook updates were analyzed. The Japanese organization's crisis communication messages will be retrieved from the organization's official site and Twitter account.

The coding sheet includes certain words and word expressions referring to each category based on the semantic analysis of the categories: trust, commitment, collaboration, and interactivity. The semantic analysis was conducted using an online thesauri and FrameNet lexical database.

Trust

Sentences that emphasize trust will include one or more words such as:

- Assurance
- Certainty
- Certitude
- Confidence
- Conviction

- Credence
- Credit
- Dependence
- Entrustment
- Expectation
- Faith
- Truth
- Hope
- Reliance
- Sureness
- Believe
- Faith
- Reliability
- Reliable
- Trustworthy.
- Certain, certainty Confidence
- Confident
- Convinced

1 = sentence that contains one or two of the above words or words with the same meaning

0 = sentence that contain neither any of the abovementioned words nor synonyms to the above mentioned words

Collaboration

Sentences that emphasize collaboration will include one or more words such as:

- Associate.n
- Collaborate.v
- Confederate.n
- Cooperate.v
- Cooperation.n
- in League.a
- In cahoots.a
- Jointly.adv
- Partner.n, partner.v
- Team up.v
- Together.adv
- Work together.v
- Bring together
- Work together
- Full cooperation
- Work in coordination with
- Work hand in hand
- Work closely
- Establish partnership
- To engage

1 = sentence that contains one or two of the above words or words with the same meaning

0 = sentence that contain neither any of the abovementioned words nor synonyms to the above mentioned words

Commitment

Sentences that emphasize commitment will include one or more words such as:

- Commit
- Consent
- Covenant
- Oath
- Obligations
- Pledge,n
- Pledge,v
- Promise.n,
- Promise.v
- Swear.v
- Undertake.v
- Undertaking.n
- Volunteer.v
- Vow.n, vow.v
- To secure
- Claim responsibility
- To be determined

- Reaffirm commitment

1 = sentence that contains one or two of the above words or words with the same meaning

0 = sentence that contain neither any of the abovementioned words nor synonyms to the above mentioned words

Interactivity

Sentences that emphasize interactivity meaning words that encourage people to communicate with each other and reacting to each other communication will include one or more words such as:

- Dialog.n
- Communicate.v
- Communication.n
- Consultation.n
- Discuss.v
- Discussion.n
- Exchange.n
- Contact
- Comment
- Share
- Follow

1 = sentence that contains one or two of the above words or words with the same meaning

0 = sentence that contain neither any of the abovementioned words nor synonyms to the above mentioned words