INTERCULTURAL CRISIS COMMUNICATION DURING THE 2011

FUKUSHIMA NUCLEAR DISASTER

Master's Thesis

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Intercultural Communication

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October 2014

JYVÄSKYLÄN YLIOPISTO

Tiedekunta – Faculty Faculty of Humanities	Laitos – Department Department of Communication
Tekijä – Author Aiyun Yang	
Työn nimi – Title INTERCULTURAL CRISIS COMMUNICATION DURING THE 2011 FUKUSHIMA NUCLEAR DISASTER	
Oppiaine – Subject Intercultural Communication	Työn laji – Level Master's Thesis
Aika – Month and year October 2014	Sivumäärä – Number of pages 101

Tiivistelmä – Abstract

With the motivation of contributing to further development of the emerging field of intercultural crisis communication, the study aims at exploring the reasons why the global media criticized the Japanese authorities' crisis communication during the 2011 Fukushima nuclear disaster through the inductive content analysis on both the Japanese authorities' crisis communication and the global media's perceptions on the Japanese authorities' crisis communication.

The data collected from 11 March to September 2011, including 160 press releases, transcripts of the foreign press conferences and speeches delivered at the international conferences by the Japanese authorities, and 120 news reports from BBC (89), Xinhua News Agency (19), and the New York Times (12), were analyzed.

The findings reveal four main reasons for the criticism: (1) Fukushima nuclear disaster, which was a manmade disaster, could have been prevented; (2) radiation-related jargons were not explained sufficiently; (3) reassurance without detailed explanations was repeated frequently; (4) recognition of uncertainty was absent. The findings also unveil that stereotypes on Japanese culture possibly might be added to the above reasons. However, there is only one news report for that, which is not strong enough to confirm this hypothesis.

Hence, the study offers a new insight into the theoretical or empirical study of crisis communication that the factor of stereotype may be considered when investigating the stakeholders' perceptions. It also suggests the future research direction to further examine and test how stereotypes affect both the perceptions of stakeholders and the crisis response stance of responsible organizations or national authorities during crises.

Asiasanat – Keywords Fukushima nuclear disaster, intercultural crisis communication, stereotype
Säilytyspaikka – Depository University of Jyväskylä
Muita tietoja – Additional information

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1 INTRODUCTION

1.1 The 2011 Fukushima Nuclear Disaster as a Global Crisis

On 11 March, 2011, the northeast of Tokyo, Japan, was attacked by the unprecedented Great East Japan Earthquake of a magnitude 9.0 and a subsequent tsunami, which triggered the Fukushima nuclear disaster starting with the first hydrogen explosion at Fukushima Dai-ichi Nuclear Power Plant on 12 March, 2011 (Jones, 20 March 2011; The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012). On 12 April 2011, the Fukushima nuclear disaster was announced a Level 7, the highest level on the International Nuclear Event Scale (INES), which is the same severity rating as the 1986 Chernobyl disaster (Japanese Ministry of Economy, Trade and Industry, 12 April 2011).

This large-scale nuclear disaster immediately drew the attention from the global audience and media. As for the global audience, people across the world started to panic because of two main reasons: one is its release of radioactive materials into the atmosphere, which made people scared of life-threatening radiation; the other is that people could not get sufficient and timely information on the Fukushima nuclear disaster from the Japanese authorities at the outbreak of the disaster. In Finland, people rushed to the pharmacies to buy iodine pills, so they were suddenly out of stock (Yan, 13 March 2011). In China, people waited in long lines at the shops just to buy more iodised salt, which was said to be efficient against the harmful effects of radiation, although it was denied by the authorities (LaFraniere, 17 March 2011). Moreover, in some areas of USA, people emptied the shops of iodine

pills, while airports in Asia started to screen passengers arriving from Japan for radioactive contamination ("Japan earthquake: Fukushima," 19 March 2011).

As for the global media, they were closely following the development of nuclear hazard daily and saw the Japanese authorities in the work-man-like uniforms trying to tackle this global crisis around-the-clock by a large number of press conferences, press releases, announcements, foreign briefings, and speeches at the international conferences. However, the global media held with suspicion and mistrust, constantly directly and indirectly criticized the Japanese authorities' crisis communication.

Furthermore, a global crisis refers to a crisis happening in one country (home country), but at the same time affecting other countries, drawing the global media's attention, and being managed by the home country itself instead of other countries (Coombs, 2010c). In this study, the Fukushima nuclear disaster is considered as a global crisis, as it affected other countries including China, South Korea, USA and Finland, and drew the attention from the global media, although it happened in Japan and was managed by the Japanese authorities.

Moreover, a global crisis may be the most complicated crisis, as its crisis response coordination involves different cultures, different countries, and different legal and media systems. Hence, the successful management of a global crisis requires intercultural crisis communication (Coombs & Holladay, 2010). Although many scholars have identified the integration of intercultural communication and crisis communication as one of the future development directions of crisis communication (Adkins, 2010; Coombs, 2010c; Elmasry &

Chaudhri, 2010; Gilpin & Murphy, 2010; Huang, 2006; Huang, Lin & Su,

2005; Lee, 2005; Nikolaev, 2010; Pang, Jin, & Cameron., 2010), the definition

of intercultural crisis communication and an official theory combining the

crisis communication and intercultural communication are still inadequate. By

investigating the crisis communication of the Japanese authorities and the

global media's perception on the Japanese authorities' crisis communication

during the Fukushima nuclear disaster from the perspective of intercultural

communication, this study would play a constructive role in understanding the

dynamics of intercultural crisis communication.

1.2 Aim and Motivation of the Study

Although a crisis often receives criticism from the public and the media

especially in the stage of post-crisis (Seeger & Reynolds, 2008), the study aims

at exploring the reasons why the global media criticized the Japanese

authorities' crisis communication during the Fukushima nuclear disaster

through the inductive content analysis on both the Japanese authorities' crisis

communication and the global media's perceptions on the Japanese authorities'

crisis communication.

The motivation of this study was to contribute to further

development of the emerging field of intercultural crisis communication by

integrating the knowledge and expertise in both fields of intercultural

communication and crisis communication.

1.3 Structure of the Study

This study consists of six parts. The first part is introduction. The second part

will be the theoretical frame work introducing the key concepts and three main

crisis communication theories, namely the situational crisis communication

theory (Coombs, 2011), the image restoration theory (Benoit, 1997), and the contingency theory of accommodation (Cancel, Cameron, Sallot, & Mitrook, 1997). The third part will cover the methodological framework. The fourth part will present the findings to the two research questions. The fifth part will discuss the results. The last part will conclude the study and identify the future directions of further research.

2 KEY CONCEPTS AND THEORIES

In this session, the concepts of risk, crisis, risk communication, crisis communication, intercultural crisis communication, and stereotypes, as well as three major theories in the field of crisis communication will be investigated, which will deepen the theoretical understanding of the Japanese authorities' crisis communication and the global media's perception on the Japanese authorities' crisis communication during the 2011 Fukushima nuclear disaster.

2.1 Risk and Crisis

Risk refers to the possibility of the damage or loss incurred in the future (Coombs, 2010a). This definition can be applied in almost every kind of situation where something unexpected or unwanted happens. In this particular case of the Fukushima nuclear disaster, the concept of risk has a broader meaning. It can be divided into environmental, political, public health, technical and/or even military risks. In this study, the concept of risk is used in its wider meaning, including also those hidden and underlying meanings that have risen in public communication in the media during the Fukushima nuclear disaster.

As a risk can be anticipated and detected, it can be controlled (Heath, 2010). Furthermore, a risk could also be understood as pre-crisis, or the previous stage before a crisis. Its focus is on the prevention of and preparation for a crisis (Coombs, 2009). It is a very important stage to stop a risk turning into a crisis or mitigate the impact of a crisis to the lowest, if an organization can detect a risk and prepare well enough for the worst. This also means that risk and crisis have a reciprocal relationship: a risk can be evolved into a crisis if it is not managed properly while a crisis can reveal a risk unattended. In addition, new risks may appear during a crisis (Coombs, 2010a). Since risks are closely related with crises, it is important to look into the concept of crisis.

The concept of *crisis* has been defined in different ways during the last three decades (e.g., Adkins, 2010; Barton, 1993; Coombs, 2011; Falkheimer & Heide, 2010; Mitroff, Shrivastava, & Udwadia, 1987; Seeger, Sellnow, & Ulmer, 2012). However, no uniform definition of crisis is generally agreed upon yet (Coombs, 2010b). The following are the three definitions among them.

Crisis is often defined as "a major, unpredictable event that has potentially negative results. The event and its aftermath may significantly damage an organization and its employees, products, services, financial condition, and reputation" (Barton, 1993, p. 2).

Crisis refers to "a specific, unexpected, and nonroutine event or series of events that create high levels of uncertainty and threaten or are perceived to threaten an organization's high-priority goals" (Seeger et al., 2012, p. 233).

Crisis is "the perception of an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organization's performance and generate negative outcomes" (Coombs, 2011, p. 2).

The concept of crisis defined by Coombs (2011) is relatively commonly used. In the opinion of Coombs (2011), whether it is called a crisis depends on the views of stakeholders. If no stakeholders perceive it as a crisis, the crisis does not exist.

This view relates to reputational crises of organizations, such as rumors, rather than, for example, an earthquake. In other cases, the existence of a crisis can hardly be denied. Other definitions explicitly point out that a crisis is an event or a situation instead of a perception (e.g., Adkins, 2010; Barton, 1993; Mitroff et al., 1987; Seeger et al., 2012).

However, most of the definitions of crisis are limited to the crisis for an organization only. They hardly include the crisis for a society. Thus, a more generalized definition covering both society and organization is suggested by Falkheimer & Heide (2010) who use the concept of system to represent society or organization. "A crisis means that the normal order in a system is destabilized, which creates considerable uncertainty and requires rapid intervention" (p. 514). In this study, this definition of crisis is suitable for describing the Fukushima nuclear disaster.

When comparing the definitions of crisis by different scholars, the prominent characteristics of crisis in common are revealed (e.g., Adkins, 2010; Barton, 1993; Coombs, 2011; Falkheimer & Heide, 2010; Ford, 1981; Mitroff

et al., 1987; Seeger et al., 2012). They are: threats, damage, shock, uncertainty, unpredictable, and prompt response required. The negative nature of a crisis is emphasized. However, a crisis has not only negative impacts, but also positive ones (Coombs, 2010b; Farazmand, 2014).

Crisis is termed in Chinese as "Wei Ji (危机)" which means danger, threat (Wei 危) and opportunity (Ji 机). It implies that there are opportunities in the danger while in the opportunity, there exist dangers or threats (Graphic 1). Some scholars also echo this Chinese point of view by holding that a crisis could be a critical moment for the organization to develop or to achieve success (Friedman, 2002; Park, Salmon, & Wrigley, 2003).

This indicates that a crisis is not necessarily completely negative. Some crises can produce better results or improvements in a society or government (Chen, 2009; Farazmand, 2014; Sellnow & Seeger, 2013) if they are managed properly. For example, the global image of Chinese government was improved when it successfully managed the Sichuan earthquake crisis in 2008 (Chen, 2009, p. 196).

Although a crisis poses threats to the organization, it is also possible that it could be turned into a good opportunity for the organization to become better and stronger if it is managed properly (Coombs, 2010b). A crisis also offers an opportunity to the organization to locate and review its hidden weaknesses and find the solution to preventing the same problem from occurring again. Although it sounds a bit optimistic, it must be stressed that poor management of crises can lose the opportunities to settle the crisis and earn back the reputation (Lukaszewski, 2013).

Graphic 1: Crisis = threat + opportunity

Same as crisis having various definitions, crisis can be classified into different types (e.g., An & Cheng, 2010; Coombs, 2011; Coombs & Holladay, 2002; Farazmand, 2014; Holladay, 2010). It can be financial crisis, political crisis, environmental crisis such as the 1986 Chernobyl disaster and the 1979 Three-Mile Island nuclear crisis, and organizational reputational crisis. In addition, crises can be natural disasters, nuclear power plant accidents, and riots (Farazmand, 2014, pp. 3-4). The general types that are identified by most of the scholars include natural disaster, accident, and malpractice. The classification is based on the causes of a crisis, which fall into three broad categories: force majeure, technical errors, and human errors (Coombs, 2011). Natural disaster, such as earthquakes, tsunami, floods, are the crisis induced by force majeure. Malpractice of the management, such as corruption, is obviously caused by human errors while accidents could be provoked by human and/or technical errors.

Nevertheless, Adkins (2010), who is inspired by Strengths, Weaknesses, Opportunities, and Threats (SWOT), argues that the attributions of an organizational reputational crisis could be classified into two groups:

internal factors (e.g. internal weakness), and external factors (e.g. natural disasters). In his opinion, the root cause of a crisis comes from the internal weaknesses of an organization. The external factors are only the trigger of a crisis for an organization, whose weaknesses would be exposed during a crisis. For example, a natural disaster can trigger the secondary reputational crisis in an organization (Coombs, 2011). However, his views seem to over-simplify the complexity of a crisis by, for example, overlooking the technical errors (e.g. technology failures) mentioned above.

As crises can be natural disasters or nuclear power plant accidents, for example, the 1986 Chernobyl disaster (Farazmand, 2014, pp. 3-4), it can be seen that the terms of crisis and disaster are often used interchangeably. However, there is difference between them (Coombs, 2011). The Chinese terms of crisis and disaster can easily tell the distinguished difference between these two concepts. Crisis in Chinese is "Wei Ji 危机", which includes not only dangers or threats, but also opportunities, while disaster in Chinese is "Zai Nan 灾难", which only means catastrophes of very large scale, no opportunities involved. The following concept of *disaster* defined by UN/ISDR (United Nations International Strategy for Disaster Reduction) echoes the Chinese meaning of disaster.

> *A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. (UN/ISDR, 2007)*

The above definition of disaster refers to the large-scale catastrophes that draw the national or even the international attention. It cannot

be called a disaster if it could be managed at the local level (Coombs, 2011). Usually it is the responsibility of the national government instead of individuals or corporations to be in charge of the response to or management of a disaster (Coombs, 2011).

In addition, EM-DAT (The International Disaster Database Centre of Research on the Epidemiology of Disasters – CRED) specifies that one of the criteria of a disaster is declaration of a state of emergency (2014).

Emergency refers to "a situation or state characterized by a clear and marked reduction in the abilities of people to sustain their normal living conditions, with resulting damage or risks to health, life and livelihoods" (Wisner & Adams, 2002, p. 12). It requires immediate attention and rescue services. A disaster usually provokes emergency (Wisner & Adams, 2002).

For example, a nuclear disaster in a country causes the radiation emergency which also affects the neighboring countries. Usually it is the international and national authorities who will be responsible for managing the radiation emergency. The urgent measures, such as evacuation or shelter-in-place, are executed through the immediate and frank warnings (Wisner & Adams, 2002). In this study, the 2011 Fukushima nuclear disaster is a radiation emergency which requires the immediate assistance and rescue measures implemented.

However, not all crises are emergencies, for example, the organizational reputational crisis or the financial crisis mostly are not emergencies in need of the prompt rescue services.

As mentioned above, a disaster can trigger a secondary reputational crisis for a government or an organization (Coombs, 2011). For example, as it is any government's fundamental responsibility to keep its people and possessions from harm (Farazmand, 2014), the tsunami in 2004 could put the Indonesian or Thai government into a crisis of reputation if it were not handled properly. This point of view is reinforced by Adkins (2010) who argues that natural disaster is the external factor to the organizational reputational crisis. A disaster has primary effects that call for reducing harm and damage, but it may also have secondary effects that can induce reputational crises if the prevention activities and/or response to the disaster are criticized.

The above is about the difference and relationship between crisis and disaster. As a crisis is not static (Seeger & Reynolds, 2008), it tends to develop into different stages as time goes by. Next, different development stages of a crisis will be explored.

Based on the development of a crisis and the response strategies to a crisis, different scholars have different models of crisis stages (Coombs, 2011; Guth, 1995; Mitroff, 1994; Seeger & Reynolds, 2008; Seeger, Sellnow, & Ulmer, 2003), including approaches of three-stage, four-stage, and five-stage.

The three stages, namely pre-crisis, crisis, and post-crisis, are recognized by most scholars (Guth, 1995; Seeger et al., 2003), as they can be further subdivided: pre-crisis into prevention and preparation (Coombs, 2011), crisis into initial events, maintenance, resolution (Seeger & Reynolds, 2008) or response (Coombs, 2011), and post-crisis into evaluation (Seeger & Reynolds, 2008) or revision (Coombs, 2011).

The three-stage approach is common for all crisis types, whereas the sub-divisions are not used in all kinds of crises.

Different stages of crisis require different crisis communication strategies (Seeger & Reynolds, 2008), which will be discussed in the following section.

2.2 Risk Communication and Crisis Communication

Effective communication plays a vital role in reducing the negative impacts of a risk or a crisis. Crisis management during a natural disaster or a public health emergency could not be done without effective communication, in particular risk/crisis messages, warnings of the potential harms, emergent evacuation notifications, and proposed suitable counter-measures. In practice, people tend to mix up risk communication and crisis communication, as they have many similar and sometimes overlapping features (Seeger & Reynolds, 2008).

For example, through mass communication channels, both need to send out the messages to the public with the aim of changing their behavior and understanding of the event, but they do differ from each other significantly (Seeger & Reynolds, 2008). In the following, the difference between risk communication and crisis communication will be discussed.

The concept of *risk communication* can be defined as "the exchange of information among interested parties about the nature, magnitude, significance or control of a risk" (Covello, 2011, p. 359). As a risk can be perceived as pre-crisis, risk communication aims to prevent and prepare for a potential crisis (Coombs, 2009a).

It means that those who send out the information about risks purposefully alert the public of the risks and the potential consequences in order to make the public change their behavior and prevent the risks from developing into a crisis. It also enables the general public to have all the necessary information on risks, so that they could make the best choices by themselves (Seeger & Reynolds, 2008).

The risk message, which tends to focus on the message itself, is usually well formulated, as it allows much more time than the crisis message. It is not only informative, but also very persuasive, as it seeks to change the behavior of the public (Seeger & Reynolds, 2008).

The above is about risk communication. In the following, crisis communication will be investigated.

The traditional view on crisis communication is "a static, and one-way process" (Sellnow & Seeger, 2013, p. 116), as it is manifested in this definition of *crisis communication* as "the collection, processing and dissemination of information required to address a crisis situation" (Coombs, 2010b, p. 20). This definition seems to emphasize that crisis communication is one-way communication, only from the sender to the receivers.

However, crisis communication often includes a two-way approach, as shown in this definition of crisis communication as "the dialogue between the organization and its public prior to, during, and after the negative occurrence" (Fearn-Banks, 2007, p. 9). Furthermore, this definition implies that crisis communication is all through the three stages of a crisis, which is also echoed by Coombs (2010b).

However, these two definitions do not explicitly mention the purpose of crisis communication, which is "to prevent or lessen the negative outcomes of a crisis and thereby protect the organization, stakeholders and/or industry from damage" (Coombs, 2011, p. 5). Crisis communication in terms of organizational reputational crises, also aims to win back the general public's full trust and confidence in the organization by keeping the public posted of the development of a crisis (Coombs, 2011).

Crisis communication, in the case of organizational reputational crises, tends to be more like the public relations activity on crisis. During a crisis, public relations are a very common tool adopted by organizations to explain what is happening, protect their image and reputation, and restore the public's confidence in them. However, in the case of disasters, the crisis message, which emphasizes rather the function of informing than persuasion, is mainly about telling the public what is known and what is unknown about a crisis (Seeger & Reynolds, 2008).

As during crises, there is often less time than in case of a risk message because of the urgent needs of the public who demand immediate information from the authorities, a crisis message tends to be more direct and instructional than a risk message. In contrast to risk communication, crisis communication focuses more on the specific event itself. It may adopt a combination of communication channels, from press conferences, radio, and TV news, to also social media such as Facebook, Twitter, through which different public groups can be reached and updated of the latest status of the crisis in a timely manner. However, a warning message must be clear, accurate, and easy-to-understand to avoid any misunderstanding (Glik, 2007).

According to Sturges (1994), the crisis communication could include three categories: instructing information, adjusting information, and reputation repair. Instructing information is the most important during a crisis, as it tells the public the basic information of the crisis and what to do to ensure their safety when a crisis occurs, for instance, to stay indoors or evacuate. Adjusting information comes after instructing information in terms of importance, as it helps people to deal with the crisis mentally, such as coping with terrorist behavior, and communication with compassion and care (Patel & Reinsch, 2003; Ray, 1999; Sen & Egelhoff, 1991). Reputation repair refers to the information the aim of which is to restore the reputation of an organization (Sturges, 1994).

However, there is a paradox about the amount of information. If too little information provided, the public would not believe that the authorities could protect their safety, while if too much information, people would tend to think that the authorities could have prevented the crisis from happening, thus more responsibilities would be attributed to the authorities (Coombs, 2011).

The middle way is recommended (Coombs, 2011), but it is against the best practices of crisis communication, such as openness and frankness (Coombs, 2010b; Covello, 2003; Holladay, 2010; Nikolaev, 2010; Sandman, 2013; Seeger, 2006). As no fixed recipes for solving the paradoxes in crisis communication (Falkheimer & Heide, 2010), flexibility should be applied in crisis communication (Agnes, 2013).

Moreover, crisis communication could be divided into two sections: "crisis knowledge management, and stakeholder reaction management"

(Coombs, 2009, p. 9). The section of crisis knowledge management means that the responsible organization has to find out all the related information of a crisis and keep updating the public or the stakeholders of the latest status after the careful analysis on the available information. This part is mainly concerning obtaining the specific knowledge about a crisis (Coombs, 2009). As a crisis triggers the urgent demand for immediate information, crisis knowledge management can meet this need by searching for and providing the details for the stakeholders or the public promptly (Coombs, 2010b).

Another section of stakeholder reaction management implies that how the stakeholders or the public respond to a crisis and their attitude to the responsible organization are also considered in crisis communication. This part, in the case of organizational reputational crises, is about understanding and possibly shaping the perception of the stakeholders or the public (Coombs, 2009).

The above are about risk communication, crisis communication and their difference. In the following, the state and development of crisis communication theories in general will be introduced. Furthermore, three major crisis communication theories, namely the situational crisis communication theory (Coombs, 2011), the image restoration theory (Benoit, 1997), and the contingency theory of accommodation (Cancel, et. al., 1997) will be discussed.

2.3 Theorizing Crisis Communication

The characteristics of crises, such as uncertain and unforeseeable, make it difficult to theorize crisis communication. Although a crisis might be

considered as an unrepeated accident in some cases, the increasing occurrence of crises provides scholars with an opportunity to establish the theoretical crisis frameworks by studying and analyzing similarities, patterns and relationships of crises. Many theoretical crisis frameworks were case-based with the focus on specific phenomena, for example, "warning theories and evacuation models for hurricanes and recall models for contaminated food" (Sellnow & Seeger, 2013, p. 12). To an increasing extent, an inclusive approach is adopted to develop more comprehensive and general crisis communication theories (Sellnow & Seeger, 2013). However, the traditional crisis communication theories tend to offer the simple and general solutions to the crises of uncertainty and complexity, which remains as the disadvantage of crisis communication theories (Falkheimer & Heide, 2010).

Furthermore, crisis communication theories mostly are developed based on the crisis management practice. The accumulated experience, deeper insight and improved crisis management practice of crisis communication practitioners, which unveil patterns and relationships of crises, helped to formulate more comprehensive and systematic theoretical frameworks. As a result, case study is often used as the methodology to examine crises (Sellnow & Seeger, 2013, p. 13).

Moreover, crisis communication theories should not be static. They might keep improving and growing by integrating more new insights, as the societies, communication technologies, and cultures change (Sellnow & Seeger, 2013, p. 30). It indicates that there is still much room for theory development in the field of crisis communication.

The above is about the state and development of crisis communication theories. In the following, three important crisis communication theories will be elaborated.

Taking the opinion of stakeholders into consideration, the situational crisis communication theory (Coombs, 2011), is the dominant theoretic framework in the discipline of organizational reputational crisis communication (Fediuk, Pace, & Botero, 2010), as it provides practical crisis response strategies to tackle different types of crises with the aim of protecting and restoring the reputation of an organization. It is based on a theory in the social-psychology called the attribution theory (Weiner, 1986), which stresses that particularly for a negative event, people tend to find out why it happened and who should be held responsible. Hence, the key point of the situational crisis communication theory (SCCT) is the crisis liability (Coombs, 2010b). Starting from deciding what type a crisis belongs to by analyzing the causes of a crisis, SCCT recommends the suitable crisis response strategies for different crises caused by different reasons (Coombs, 2010b).

First, SCCT (Coombs, 2010b), classifies a crisis into three types based on the different degrees of attributions of crisis liability for an organization: "victim (low crisis responsibility/threat), accident (minimal crisis responsibility/threat), and intentional (strong crisis responsibility/threat)" (p. 39).

However, it is argued that the last two types of a crisis: accident and intentional, partly seem to overlap, as an intentional crisis may be provoked by human errors, but accidents could be triggered by technical errors

or human ones. If the cause of an accident is human errors, e.g. negligence of the security regulations, the public or the stakeholders would tend to attribute as strong crisis responsibility as the intentional type to the organization.

Second, SCCT takes the two intensifiers: the crisis history and previous reputation of an organization, into consideration, as both would help frame the stakeholders' perception on the responsible organization (Coombs, 2010b, p.39).

Third, after the analysis of the crisis types within organizational crises, SCCT provides a series of crisis response strategies, which can be grouped into two clusters: primary strategies and supplemental strategy. The cluster of primary strategy includes deny, diminish and rebuild while the supplemental strategy refers to reinforcing (Coombs, 2010b, p. 40).

The deny strategy including attack the accuser, denial and scapegoat can be applied if the organization has no responsibility for a crisis incurred, but nevertheless is blamed. The diminish strategy including excuse and justification strives to lessen the organization's crisis responsibility as perceived by the stakeholders or the public. The rebuild strategy consisting of compensation and apology, which attempts to ameliorate the reputation of the organization, is suitable for dealing with the intentional crisis (the highest crisis responsibility/threat). The reinforcing strategy including bolstering, ingratiation and victimage, which should work as supplement to the primary strategies, can be employed only when the responsible organization has good track records or grounds to extend its gratitude to others (Coombs, 2010b, pp. 40-41).

It can be seen from the above that, referring to organizational reputational crises, SCCT suggests a spectrum of crisis response strategies from self-defensive to compromising according to different levels of crisis responsibility with the purpose of protecting or saving an organization's reputation.

The purpose and recommended crisis response strategies of SCCT are more or less the same as another theory, which is the image restoration theory (Benoit, 1997). Same as SCCT, assuming that a crisis poses threats to an organization, the image restoration theory (IRT) offers five strategies in order to reestablish the reputation of an organization: denial, evading responsibility, reducing offensiveness, mortification, and corrective action (Benoit, 1997). The corrective action strategy, which refers to a pledge to take preventive measures in the future (Benoit, 1997), is not emphasized in SCCT.

However, the crisis response strategies suggested by both SCCT and IRT seem to provide the organizations with a quick-fix guidance if an organizational reputational crisis happens. However, there are more crisis types than organizational reputational crises. In addition, as mentioned above, a crisis is not static and it keeps changing (Seeger & Reynolds, 2008). This formula: which type of a crisis should be matched with which kind of apology strategies, applies mainly to reputational crises and does not take the dynamic and complex nature of a crisis into account.

Recognizing the changing and complicated inherence of a crisis, the contingency theory of accommodation adopts a more flexible approach, and asserts that in dealing with a conflict or a crisis, an organization's position

can move along a continuum from advocacy to accommodation. As for the question about which stance should be taken and at what time, it would be affected by a total of 87 internal and external factors, such as corporate culture, government legislation…etc. (Cancel et al., 1997).

Comparing the above three theories: SCCT, IRT and the contingency theory, the crisis response strategies they suggest are much in common. Generally speaking, all these strategies cover a range from self-defensive (e.g., deny, diminish) to compromising (e.g., rebuild, mortification). In addition, the above theories foremost relate to organizational reputational crises, rather than emergencies and disasters where the focus is on protecting various stakeholders from harm. However, the crisis communication studies on disasters may be done from the organizational perspective (Richardson & Byers, 2004), for example, the 2005 Hurricane Katrina (Adkins, 2010; Fearn-Banks 2007), and the 2008 Sichuan earthquake (Chen, 2009).

Nevertheless, the main difference is that both SCCT and IRT propose a rather rigid approach as mentioned above, while the contingency theory adopts a dynamic approach and allows the responsible organization to move along the continuum from self-defensive to compromising depending on the internal and external variables (Cancel et al., 1997). Furthermore, it suggests that both advocacy and accommodation could be applied at the same time depending on the actual situation of a crisis (Jin, Pang, & Cameron, 2006). The following are the crisis response strategies recommended by these three theories:

1. SCCT: deny, diminish, rebuild, plus the supplemental reinforcing strategy (Coombs, 2010b, p. 40)

2. IRT: denial, evading responsibility, reducing offensiveness, mortification, and corrective action (Benoit, 1997)

3. The contingency theory: a continuum from advocacy to accommodation (Cancel et al., 1997)

As crisis communication is one of the major research interests in the field of public relations (Ki & Khang, 2005), the contingency theory, as the prime theory in public relations, has been utilized to tackle different phenomena, such as crisis communication, health crises, in various national and international contexts (Pang, Jin & Cameron, 2010). Considering the dynamic and complex nature of a crisis, the contingency theory would be more suitable for dealing with a crisis than SCCT and IRT. However, the contingency theory has not explicitly shown the weight of these 87 internal and external factors respectively in the influence on the organization's stance moving along the continuum from advocacy and accommodation. Moreover, it does not mention among these 87 factors, which are the key factors, which are minor, and how the interplays of various factors can move an organization towards which stance along the continuum. Same as the other crisis communication theories, such as SCCT, and IRT, the contingency theory focuses on the corporations rather than the governmental agencies (Liu & Horsley, 2007).

The majority of reputational crisis communication theories have not made explicit differentiation between the corporations and the governmental agencies (Tracy, 2007), although it is known that business

organizations are different from governmental agencies. The crisis responses adopted by the governmental agencies are unlike from the ones taken by the business organizations. There are two key points in difference. The first one is that the governmental agencies gain the reputation by providing the public with the quality public service all the time including even during the crisis. The second one is that the stakeholders of the governmental agencies, especially the affected public, are fundamentally more susceptible and more frustrated than those in the business organizational crises, as they have to depend on the governmental agencies during a crisis (Avery & Lariscy, 2010). Furthermore, in other crisis types such as disasters, authorities are responsible for emergency response which creates responsibilities for the population and reducing or preventing damage and harm.

As mentioned above, crisis communication theories mostly are practice-oriented (Sellnow & Seeger, 2013), with efforts directed towards developing the strategies or the best practices (Seeger, 2006). Therefore, a number of best practices that instruct on how to deal with crisis communication competitively have been recommended by various scholars (eg., Covello, 2003; Reynolds & Seeger, 2005; Sandman, 2013; Seeger, 2006).

First, the best practices of risk and crisis communication emphasize that crisis messages should be accurate and clear, and avoid using jargons. As the urgent messages are targeted at the general public under such strong time pressure, simple and clear language should be adopted in order to avoid any misunderstandings (Covello, 2003).

Second, the best practices further stress the important role that the media play during crises. The relationship with media is very important to crisis communication. The authorities should collaborate with the media, because the public tend to depend on the media reports for prompt information. The authorities should be accessible to the media any time during crises and tell them that all the information is open and available. If the authorities are not available for them, the media will hunt for other available information providers. Most rumors and misunderstanding would thus occur if the media obtain some wrong information and release the wrong message to the public. Furthermore, the authorities will be perceived as if they are trying to hide some information or incapable of managing the crisis situation (Holladay, 2010; Press Office of the U.S. Department of State, 2008). Therefore, the authorities should engage with the media from the start of a crisis with the prompt, frank, open, precise, and consistent response to them (Coombs, 2011; Holladay, 2010; Ray, 1999; Sen & Egelhoff, 1991).

Third, the best practices acknowledge uncertainty which is one of the prominent features of a crisis (Sandman, 2013; Seeger, 2006; Ulmer & Sellnow, 2000). For instance, the cause of a crisis often could not be confirmed immediately. The recognition of uncertainty not only provides more flexibility for the organization to handle the crisis response, but also prevents it from over-speculating or making mistakes of releasing unconfirmed information to the public (Ulmer & Sellnow, 2000). In addition, it manifests honesty and openness of the authorities, which will in turn strengthen the credibility of the organization.

Finally, most of the best practices of crisis communication suggested tend to be the general guidelines which require prompt response, honesty, openness, accurateness, consistency, good media relationship (Coombs, 2010b; Covello, 2003; Holladay, 2010; Nikolaev, 2010; Sandman, 2013; Seeger, 2006). In addition, as the cause of each crisis is different, flexibility should be always applied in crisis response (Agnes, 2013).

The above are the best practices or recommendations of crisis communication in general. In the following, the detailed strategies of risk and crisis communication for different stages of a crisis based on the approach of Crisis and Emergency Risk Communication (CERC) will be discussed.

Crisis and Emergency Risk Communication (CERC), developed by Centers for Disease Control and Prevention (CDC), the USA's primary health agency under the U.S. Department of Health and Human Services, is a communication approach combining the risk communication and crisis communication into one scheme (Reynolds & Seeger, 2005). This approach relates to emergencies such as pandemics.

Crisis and Emergency Risk Communication (CERC) is a crisis communication technique with the aim of facilitating the stakeholders to make the well-informed decisions by the provision of information. It is the accurate and effective integrated communication strategy including the informing of diverse stakeholders of risks in emergency situations (Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, 2008).

Based on CERC, Seeger & Reynolds (2008) suggested different communication strategies or best practices for the five stages of a crisis including pre-crisis, initial events, maintenance, resolution, and evaluation.

The first stage is the pre-crisis stage, which could be understood as risk. This is when it is necessary to adopt a strategy of risk communication that is to send out the risk messages and warnings to the general public, to raise their awareness of the emerging risks and persuade them to take the necessary precaution measures in order to reduce the possible harm, which may be brought by the risks (Seeger & Reynolds, 2008).

In the next stage (the outbreak of the crisis), the strategy of immediate, accurate, honest and transparent crisis communication should be adopted in order to reduce uncertainty among the public and the media. People and the media could freely use their imagination to emotionally predict how terrible the crisis would be if they could not get immediate and precise information on the crisis from the authorities. This would definitely cause a huge disastrous fear and uncertainty in society. The consequences would be even worse than the crisis itself (Seeger & Reynolds, 2008).

The authorities should notify the general public immediately of the nature of the crisis, the actions and measures taken by the authorities and the responses the public are recommended to have. It will have much more devastating consequences if the authorities try their best to cover up the crisis. The more you cover it, the worse it will be (Seeger & Reynolds, 2008).

Plenty of real life examples already proved this. For example, the Chinese government was accused of trying to cover up in the initial period of

the outbreak of SARS in Southern China in 2003. Much more deaths in China were caused because of the lack of timely and accurate information about the epidemic from the authorities (Meng & Berger, 2008). Therefore, it is clear that crisis communication plays a very crucial part in this stage.

In the stage of maintenance, the crisis communication strategy at the previous stage (the stage of initial event) continues. It ensures that the public understands the crisis more and denies possible unfounded rumors or misunderstanding among the public (Seeger & Reynolds, 2008).

The next stage, resolution, is mainly about recovery and rebuilding after a crisis. In this stage, the goal is to increase the public's new awareness of the risk, and at the same time let them know more about the new risks and how to avoid and respond to the new risks in the future (Seeger & Reynolds, 2008). Typically, in this stage, the authorities will receive a lot of criticism and questions of responsibility from the media and the general public at home and abroad. The authorities should adopt an honest attitude to deal with these problems (Reynolds & Seeger, 2008).The authorities should not hide anything from people just to save face.

The last stage is evaluation, which is learning the lessons from the crisis so that the authorities and people could be better prepared for a similar crisis in the future. The authorities will evaluate the effectiveness of the particular crisis communication and decide what to do next to enhance it, so that they will be able to deal with the crisis more skillfully and more confidently in the future (Seeger & Reynolds, 2008).

This is a very important stage for crisis management in the future. It is underlined that learning from a crisis can facilitate risk recognition and the collective understanding of a risk. If people know the root cause of a risk, they will tend to make their well-informed choices and modify their behavior accordingly in order to avoid the risk (Seeger & Reynolds, 2008).

What's more, the authorities will be able to change the norms and avoidance system so as to prevent a similar crisis from happening again in the future. In addition, learning plays an important role in the maintenance of image and reputation for the authorities and organizations (Seeger & Reynolds, 2008).

If the authorities did a bad job during crisis management, criticism from home or abroad would be pointed at them, especially at the stage of resolution. In the end, most probably, those who are in charge would need to take all the blames and be forced to resign (Seeger & Reynolds, 2008).

The above are about the theories and best practices of crisis communication. In the next section, intercultural crisis communication will be explored.

2.4 Intercultural Crisis Communication

Globalization makes crisis communication become international and progressively complicated (Coombs & Holladay, 2010; Meng & Berger, 2008). Moreover, in the 21st century, the large-scale crises and emergencies, for instance, the environmental crises which may cross the national borders and become global crises, draw the attention and concerns from the world. Mostly, multinational and global collaboration is required (Farazmand, 2014).

Moreover, a global crisis may be the most complicated crisis, as its crisis response coordination involves different cultures, different countries, and different legal and media systems. This, thus, creates the demand for intercultural communication in the context of a crisis situation, as the authorities in the home country would face the challenges of cultural differences from other stakeholder countries (Coombs, 2010c).

Hence, the successful intercultural crisis communication is needed in tackling the global crises (Coombs & Holladay, 2010). As culture can affect the authorities' choices on the approaches to crisis response (Huang, 2006), it is considered as a crucial factor to crisis communication on a global scale (Coombs, 2010c).

In addition, the importance of the cultural factor in crisis communication has been mentioned and the incorporation of intercultural communication into the crisis communication is identified as one of the future development directions of crisis communication (Adkins, 2010; Coombs, 2010c; Elmasry & Chaudhri, 2010; Gilpin & Murphy, 2010; Huang, 2006; Huang, Lin, & Su, 2005; Lee, 2005; Nikolaev, 2010; Pang et al., 2010).

Furthermore, although the above best practices of crisis communication do not mention the culture, the contingency theory includes organizational culture as one of the internal variables that would affect the organization's stance of crisis response (Cancel et al., 1997). This also echoes the importance of culture in crisis communication.

It can be seen from the above that intercultural communication is important to crisis communication and a global crisis needs effective

intercultural crisis communication. Therefore, it is essential to investigate the concept of intercultural crisis communication.

Before defining the concept of intercultural crisis communication, it is necessary to understand the definition of intercultural communication first. *Intercultural communication* can be defined as "interaction between people whose cultural perceptions and symbol systems differ enough to influence the communication event (Samovar, Porter, McDaniel, & Roy, 2012, p. 8). It not only emphasizes the interaction between people from different cultural backgrounds, but also indicates that people may see and understand the world from their own cultural perspectives. This may lead to ethnocentrism that people tend to judge other different cultures by their own cultural values or perspectives (Patel, Li, & Sooknanan, 2011).

Furthermore, this definition shows the interrelated relationship between culture and communication: communication, which is influenced by culture, shapes culture. Intercultural communication is the integration of culture and communication (Patel et al., 2011).

In addition, intercultural communication could be affected by various factors, for example, the mass media which can help shape people's perception. Ethnocentrism, stereotypes, and prejudice may twist people's perception and hinder intercultural communication (Patel et al., 2011).

Although the traditional academic study of intercultural communication focuses on the interpersonal level, intercultural communication could be also examined at the level of different cultural groups as indicated in this definition of crisis communication "the communication between

individuals and/or groups from different cultures" (Pinto, 2000, p. 14). Hence, in this study, the formal communication of the Japanese authorities and the world outside Japanese culture forms a case of intercultural communication, which mostly can be regarded as an example of Japanese crisis communication.

After exploring the two different fields of crisis communication and intercultural communication, and the importance of intercultural communication to crisis communication, the concept of intercultural crisis communication may be formed naturally. In this study, the concept of *intercultural crisis communication* is defined as the interaction between the sender and the receivers from different cultural backgrounds with the aim of reducing the damage of a global-sized disaster to the lowest possible level worldwide. It can be understood as the integrated form of intercultural communication and crisis communication. Hence, some basic concepts and theories in the discipline of intercultural communication might be able to contribute to further understanding of crisis communication during a global crisis.

As mentioned above, intercultural communication could be negatively affected by ethnocentrism (Patel et al., 2011), which may pose two major challenges to intercultural crisis communication. The two difficulties are how not to be ethnocentric, and how to accommodate to the international stakeholders of different cultural backgrounds which is more challenging (Coombs, 2010c). These two big difficulties or challenges are interrelated. If the authorities of the home country do not judge other cultures or people by their own cultural rules and norms, they tend to have the awareness of cultural difference and would make the corresponding adjustments to intercultural

communication with the stakeholder countries in terms of crisis response. In turn, if the authorities could adapt to the international stakeholders, they are not ethnocentric, as they are aware of the cultural difference and willing to think in the shoes of people from other cultures while managing a global crisis.

Therefore, cultural awareness, and the knowledge and skills of intercultural communication, which facilitate mutual understanding and harmony among difficult cultures (Samovar, Porter, & McDaniel, 2011), would be beneficial to the management of a global crisis (Coombs, 2010c).

The above is about the challenges to intercultural crisis communication. In the next section, the challenges to intercultural crisis communication will be further investigated by specifically looking into the concept of stereotype, as a stereotype is one of the reflections of ethnocentrism (Bennett, 1986).

2.5 Stereotype

As the successful intercultural communication is important to the communication of a global crisis (Coombs, 2010c), and a stereotype is considered as one of the obstacles to hinder intercultural communication (Lehtonen, 2005; Samovar, Porter, McDaniel, & Roy, 2012), it is necessary to explain the concept of stereotype and its impacts in the following.

The concept of *stereotype* is defined as follows:

> *a complex form of categorization that mentally organizes your experiences with, and guides your behavior toward, a particular group of people. It becomes a means of organizing your perceptions into simplified categories that can be used to represent an entire collection of things or people. (Samovar et al., 2012, p. 231)*

In short, it refers to the over-generalized and simplistic perceptions.

Stereotypes have also been characterized as "a generalization based on limited information, limited interaction, and limited experience with a person, group, or situation" (Fong & Chuang, 2004, p. 43). The implication is that it may be inaccurate to apply a stereotype to a whole group of people, as it is generated based on inadequate resources. In addition, as stereotypes can be positive and negative (Fong & Chuang, 2004; Jandt, 2012; Samovar et al., 2012), they can be defined more broadly as "negative or positive judgments made about individuals based on any observable or believed group membership" (Jandt, 2012, p. 85). This viewpoint emphasizes the subjective evaluation based on over-generalization and simplification.

It can be seen from the previous definitions that a stereotype presents "a distorted view or mental picture of groups" (Gannon & Pillai, 2012, p. 23). Stereotypes can result in groundless inferences, especially when they are over-generalized (Gannon et al., 2012). Furthermore, stereotypes are often considered unethical, because they judge people improperly based on the false perception on a whole group (Adler & Gundersen, 2007).

Despite the negative consequences, all people use stereotypes (Adler & Gundersen, 2007; Gannon et al., 2012) in order to make sense of and behave properly in unfamiliar circumstances (Adler & Gundersen, 2007), as stereotypes are "a natural human survival mechanism" (Fong & Chuang, 2004, p. 43), one of the means to reduce uncertainty (Lehtonen, 2005), and a convenient shortcut to categorize individuals, groups, or situations in an easy way (Fong & Chuang, 2004; Gannon et al., 2012).

Whether stereotypes can be beneficial or detrimental is contingent on the way we use them (Adler & Gundersen, 2007). For example, a stereotype could be useful when it is used to accurately describe a group's norm instead of a particular group member's traits, and when it is used descriptively instead of evaluatively (Adler & Gundersen, 2007, p. 77). Furthermore, a stereotype could be helpful if it is being updated based on further information obtained from future interaction and experience (Adler & Gundersen, 2007; Fong & Chuang, 2004).

Nevertheless, if a stereotype is inaccurate, over-generalized and evaluative, the perception on the fact would tend to be untrue, misleading and incomplete (Adler & Gundersen, 2007), which could become an obstacle to intercultural communication (Lehtonen, 2005; Samovar et al., 2012). As a stereotype is difficult to change (Adler & Gundersen, 2007; Crocker & Weber, 1983; Samovar et al., 2012), it blocks the information that is inconsistent with those already deep in a person's mind, and rejects the true information available later (Adler & Gundersen, 2007; Samovar et al., 2012). In this way, a stereotype is stubborn to alter based on the truth. In addition, it subjectively assumes that all group members have the same characteristics without exception, which is simplistic and over-generalized (Samovar et al., 2012).

Hence, a stereotype would create a misleading or false perception on people, groups or situations on the grounds of half-truths, subjective assumption, and over generalization (Gannon & Pillai, 2012; Samovar et al., 2012). Moreover, such incorrect perception would do harm to the stereotyped ones who would be misunderstood, treated unfairly and prejudiced against (Fong & Chuang, 2004).

3 METHODOLOGY

3.1 Research Questions

As the purpose of this study is to explore the reasons why the global media criticized the Japanese authorities' crisis communication during the Fukushima nuclear disaster, the analysis on both the crisis communication by the Japanese authorities and the global media's perception on the Japanese authorities' crisis communication is essential to fulfil this study's purpose. In addition, as the public mostly understands crises from the media reports (Holladay, 2010), which can frame the public perceptions (Entman, 1993), the investigation into the contents of media reports is a good way to understand the perceptions of the public and the media on the crises (Holladay, 2010). Hence, the following two research questions are proposed based on this study's aim.

RQ 1: How did the Japanese authorities communicate the Fukushima nuclear disaster to the world?

This research question seeks to investigate the Japanese authorities' crisis communication through the content analysis of the press releases, and the transcripts of the foreign press conferences and the speeches delivered at the international conferences by the Japanese authorities.

RQ 2: How did the global media perceive the Japanese authorities' crisis communication?

This research question aims to find out the global media's perception on the Japanese authorities' crisis communication by examining their attitudes to and understanding of the Japanese authorities' crisis communication manifested in their news reports.

As the study focuses primarily on press relations, the crisis communication by the Japanese authorities is investigated through press-related communication means, and for feasibility reasons did not include direct communication with citizens through other channels.

3.2 Inductive Content Analysis

In order to answer the above two research questions, the inductive content analysis is employed as the research method in this study. In the following, the concept of qualitative content analysis, three approaches to the qualitative content analysis, the process of content analysis and the reasons why the inductive content analysis is chosen as the most appropriate research method for this study will be elaborated.

Qualitative content analysis is "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 1278). It is subjective and basically interpretive (Hsieh & Shannon, 2005; Zhang & Wildemuth, 2009). It aims to learn and comprehend the phenomenon of interest in a scientific way, through the systematic analysis of text data obtained from the media (Hsieh & Shannon, 2005; Mayring, 2000). It is not only extensively applied in the social science (Schamber, 2000), but also one of the oldest research techniques used in the communication research field (Gerbner, 1964). In order to make sense of the data, the text should be read repeatedly until the researcher is acquainted with the data (Polit & Beck, 2004).

The source of text data could be from media newspapers, television, interviews, questionnaires, and other written documents including handbooks, articles, and guides (Kondracki & Wellman, 2002; Mayring, 2000; Schamber, 2000).

There are three approaches to the qualitative content analysis depending on the goal of the study and the theory development status of the field of interest (Hsieh & Shannon, 2005).

The first approach is conventional content analysis (Hsieh & Shannon, 2005), which is the same as inductive content analysis (Mayring, 2000). This research technique is suitable for the situation when the current theories or the academic works of the phenomenon of interest are insufficient in the field (Hsieh & Shannon, 2005). It allows the themes and categories to arise from the data and leads the researcher to obtain a theory or conclusion after the data analysis instead of testing or extending a theory (Kondracki & Wellman, 2002; Schamber, 2000; Zhang & Wildemuth, 2009).

The second approach is directed content analysis (Hsieh & Shannon, 2005), which could be also known as deducted content analysis (Potter & Levine-Donnerstein, 1999). It can be applied when the theories or the researches of the phenomenon of interest are already in existence, as it starts with a theory to plan the coding process (Potter & Levine-Donnerstein, 1999). Different from the inductive content analysis, deducted content analysis aims to verify or extend an existing theory (Hsieh & Shannon, 2005).

The third approach is summative content analysis, which refers to the research techniques of counting the frequency of the designated words

combined with the analysis of the circumstances when these identified words are used (Hsieh & Shannon, 2005).

Although the above three approaches to qualitative content analysis differ in goals, they share almost the same process of analysis which includes the following 8 steps (Zhang & Wildemuth, 2009).

Step 1: Data collected

Although the data can be in any forms, such as written, oral and electronic (Kondracki & Wellman, 2002), before analysis, the data are required to be converted into the written text first (Zhang & Wildemuth, 2009).

Step 2: Unit of analysis identified

The themes, which could be a word, a phrase, a sentence, are commonly used as the unit of analysis in qualitative content analysis before coding (Zhang & Wildemuth, 2009).

Step 3: Categories and a coding scheme initiated

For the inductive content analysis, the categories and a coding scheme could be revealed from the raw data, while for the deductive content analysis, those could be created from the existing theories (Zhang & Wildemuth, 2009).

Step 4: Coding scheme tested

The coherence and consistency of category's definition could be tested by coding a sample of text. The coding scheme can be revised accordingly until consistency is secured (Zhang & Wildemuth, 2009).

Step 5: All the data coded

All the data can proceed to be coded according to the tested coding scheme. New themes and concepts would probably appear during the coding process (Zhang & Wildemuth, 2009).

Step 6: Coding consistency re-examined

The coding consistency requires to be examined again after the coding of all the data is completed, as the consistent coding of the sample text could not guarantee the coding consistency of all the data due to some human errors (Zhang & Wildemuth, 2009).

Step 7: Inferences from the coded data made

This is a vital step in the content analysis, as it relies on the reasoning competence of the researcher. In this step, the patterns, themes, and categories related to the phenomenon of interest would be unveiled (Zhang & Wildemuth, 2009).

Step 8: Results presented

The coding process and the methods to ensure the reliability and validity of the research should be presented in details. Both the description of the background information and the researcher's own interpretation and insights of the phenomenon of interest should be reported in a balanced way (Zhang & Wildemuth, 2009).

As seen from the above section of theorizing crisis communication, the field of crisis communication is empirically based rather than theoretically

supported (Falkheimer & Heide, 2006). The major theories applied in crisis communication, such as situational crisis communication theory (Coombs, 2010b), the image restoration theory (Benoit, 1997), and the contingency theory (Cancel et al., 1997), mainly emphasize the best practice strategies of crisis response, which are derived from the individual case studies. Furthermore, an official theory combining the crisis communication and intercultural communication is still inadequate. Under these circumstances and based on the adaptability of the three approaches to the qualitative content analysis (Zhang & Wildemuth, 2009), the inductive content analysis is chosen as the research method for this study.

3.3 Date Collection

A total of 280 press releases, transcripts of the foreign press conferences and speeches delivered at the international conferences by the Japanese authorities, and news reports, were collected by searching for the key words "Fukushima nuclear disaster" and "criticism" mainly during the time period from 11 March to September 2011 on the official websites of Ministry of Foreign Affairs of Japan, and the three key news agencies, namely Xinhua News Agency from China, BBC from the UK and the New York Times from the USA. Among the collected 280 texts, 160 from the Japanese authorities, 19 from Xinhua News Agency, 89 from BBC and 12 from the New York Times were analyzed. Each of the collected texts is saved in the PDF format.

The reasons why these three news agencies are chosen as the key sources of the text data are as follows:

Xinhua News Agency, as the key media outlet of the Chinese central government and the Chinese window to the world, enjoys the authoritative position among the Chinese media.

BBC is the biggest broadcasting organization in the world and has been widely trusted and respected by the public.

New York Times, as the global media newspaper founded in USA, is the most popular newspaper in the USA with over 30 million visitors to its website monthly.

3.4 Coding (themes and categories) and Data Analysis

In order to answer the first research question, 160 press releases, transcripts of the foreign press conferences and speeches delivered at the international conferences by the Japanese authorities collected from the website of Ministry of Foreign Affairs of Japan (http://www.mofa.go.jp/) were repeatedly read and compared with one another. The purpose was to analyze the way how the Japanese authorities communicated the Fukushima nuclear disaster to the

world. Five major themes were recognized (Figure 1).

Figure 1. Five Major Themes of Japanese Authorities' Crisis Communication

Figure 1. N=160
Some articles cover more than one major theme
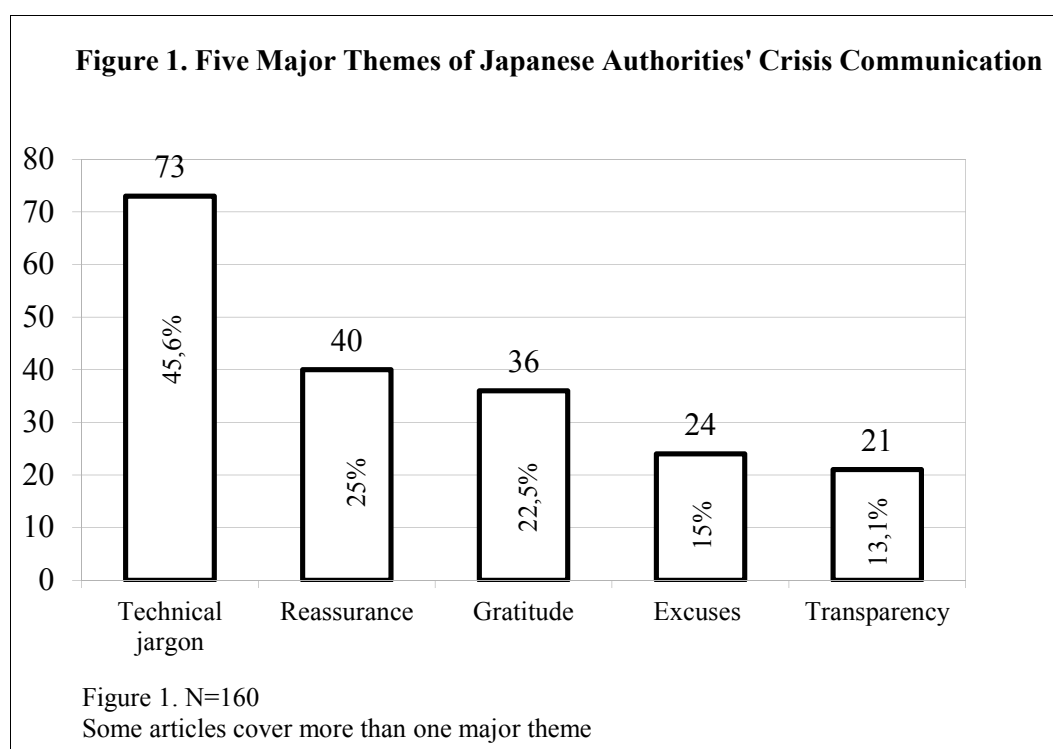
In order to answer the second research question, three categories are identified to code the news reports collected from the three media agencies separately: category of perception of Xinhua News Agency, category of perception of BBC, and category of perception of the New York Times.

Under the category of perception of Xinhua News Agency, 19 news reports collected from the website of Xinhua News Agency (http://www.xinhuanet.com/english/) were repeatedly studied and compared with one another in order to examine how the Chinese media perceived the Japanese authorities' crisis communication during the Fukushima nuclear

disaster. Three themes emerged (Figure 2).

Figure 2. Three Themes under Category of Perception of Xinhua

Figure 2. N=19
Some articles cover more than one major theme
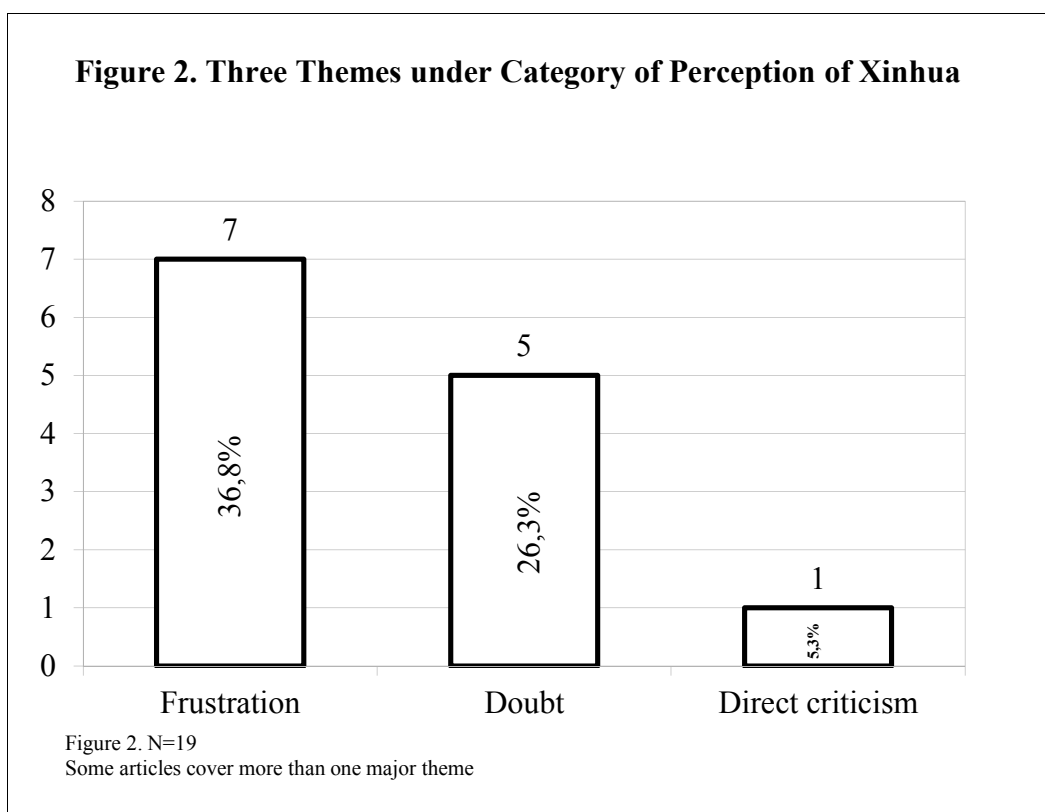
Under the category of perception of BBC, 89 news reports collected from the website of BBC (http://www.bbc.co.uk/) were studied and compared with one another. The purpose was to examine how BBC perceived the Japanese authorities' crisis communication during the Fukushima nuclear

disaster. Seven themes were recognized (Figure 3).

Figure 3. Seven Themes under Category of Perception of BBC

Theme	Count	Percentage
Doubt	14	15,7%
Direct criticism	12	13,5
Frustration	11	12,4%
Fear	9	10,1%
Opinions of Affected People	6	6,7%
Criticism on Tepco	4	4.5%
Confirm Japanese Claims	2	2,2%

Figure 3. N=89
Some articles cover more than one major theme
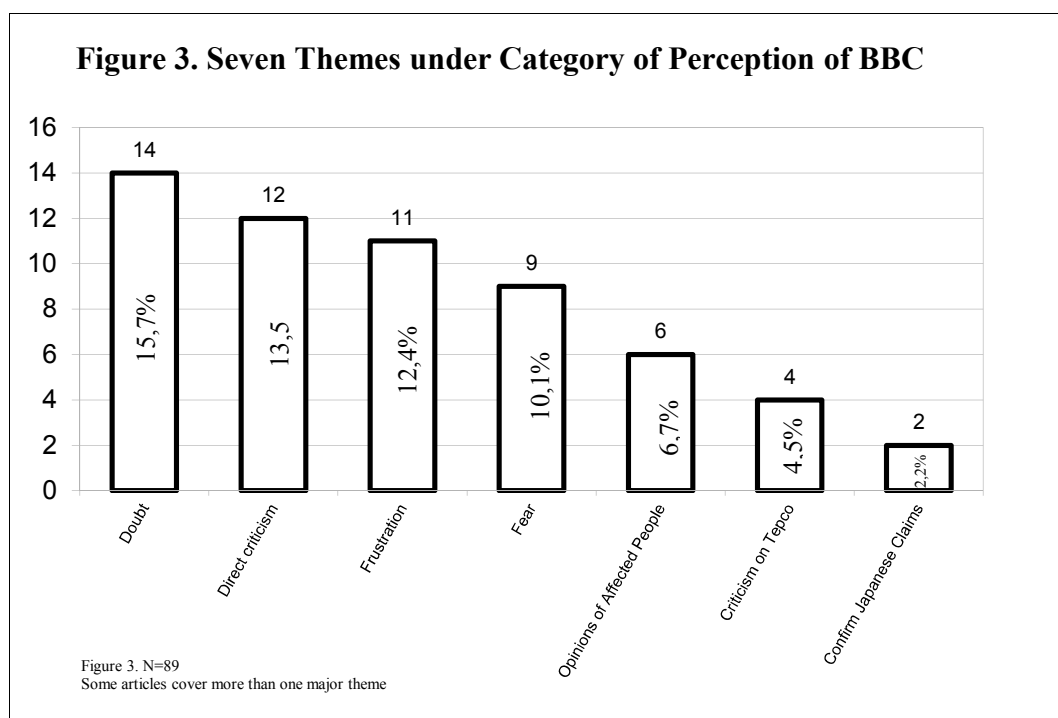
Under the category of perception of the New York Times, 12 news reports collected from the website of the New York Times (http://www.nytimes.com/) were studied and compared with one another in order to investigate how the New York Times perceived the Japanese authorities' crisis communication during the Fukushima nuclear disaster. Five
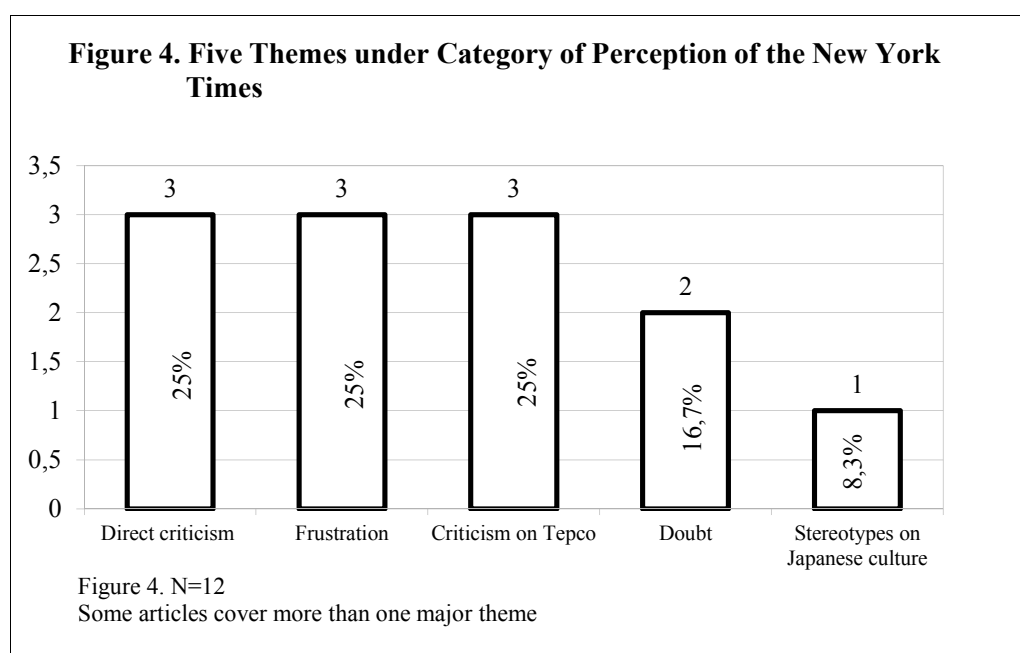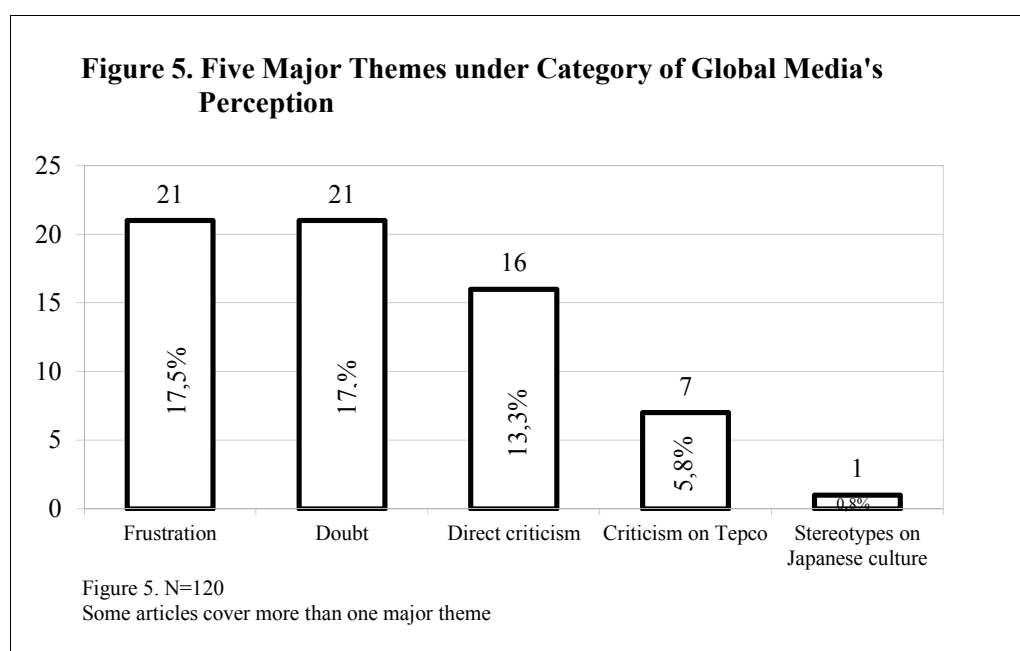
themes were identified (Figure 4).

Figure 4. Five Themes under Category of Perception of the New York Times

Figure 4. N=12
Some articles cover more than one major theme

After comparing the emerged themes under the three categories as shown above, three major themes, which are frustration, doubt, and direct criticism, are found in common in all the three categories, one major theme which is criticism on Tepco is found in the news reports from BBC and the New York Times, and one more major theme which is stereotypes on Japanese culture is only found under the category of perception of the New York Times. Although the major theme of stereotypes on Japanese culture was not found in the news reports from Xinhua News Agency and BBC, it is coded as one of the central themes, because it may play an important role in shaping the media's perception on the Japanese authorities' crisis communication. Hence, in order

to answer the second research question, five major themes emerge (Figure 5).

Figure 5. Five Major Themes under Category of Global Media's Perception

Figure 5. N=120
Some articles cover more than one major theme

4 RESULTS

4.1 Japanese Authorities Communicating the Fukushima Nuclear Disaster to the Global Audience (RQ 1)

Looking at the data and how the situation unfolded, there were five emergent themes that characterize the way how the Japanese authorities communicated with the world about the 2011 Fukushima nuclear disaster. These include technical jargons, reassurance, showing gratitude, excuses as the response to criticism and pledge of transparency. Over the next pages, each of these themes is presented in detail.

Technical Jargons in the press releases

Among the 160 texts collected from the website of Ministry of Foreign Affairs of Japan, 73 press releases (45.6%) were found to use massive amount of technical jargons. The press releases, often at the length of over 20 pages, tend

to lack the detailed explanation or implication of the technical readings to the

readers. The following is the readings of radioactivity monitoring from one of

the press releases (Ministry of Education, Culture, Sports, Science and

Technology-Japan, 25 March 2011).

Readings of dust sampling(2／2)

☐ : the readings in this thick-frame box are new.

Sampling Point	Sampling Time and Date	Nuclide	Radioactivity Concentration (Bq/m3)	Reading (μ Sv/h)
【1】(About60km NorthWest)	2011/3/19 18:30～18:50	^{131}I	1.22	7.2
		^{137}Cs	ND	
	2011/3/20 18:30～18:50	^{131}I	203	5.0
		^{137}Cs	32.20	
	2011/3/21 18:30～18:50	^{131}I	2.50	4.5
		^{137}Cs	ND	
【2-5】(About40 kmSouthWest)	2011/3/20 13:57～14:17	^{131}I	24.00	0.6
		^{137}Cs	1.75	
	2011/3/21 13:37～13:57	^{131}I	2.69	0.5
		^{137}Cs	ND	
	2011/3/22 12:32～12:52	^{131}I	6.29	0.4
		^{137}Cs	ND	
【2-6】(About45 kmSouth)	2011/3/20 15:25～15:45	^{131}I	6.89	0.6
		^{137}Cs	ND	
	2011/3/21 15:00～15:20	^{131}I	28.90	1.5
		^{137}Cs	ND	
	2011/3/22 14:00～14:20	^{131}I	17.00	0.6
		^{137}Cs	ND	
【2-3】(About40 kmWest)	2011/3/21 12:30～12:50	^{131}I	3.74	0.9
		^{137}Cs	ND	
	2011/3/22 11:32～11:52	^{131}I	3.92	2.2
		^{137}Cs	ND	
【2-1】(About40 kmNorthWest)	2011/3/21 13:00～13:20	^{131}I	12.80	4.1
		^{137}Cs	2.37	
	2011/3/22 12:26～12:46	^{131}I	5.87	4.2
		^{137}Cs	ND	
【2-4】(About25 kmNorth)	2011/3/21 14:20～14:40	^{131}I	13.20	2.8
		^{137}Cs	0.735	
	2011/3/22 13:35～13:55	^{131}I	3.81	1.8
		^{137}Cs	ND	
【2-2】(About45 kmNorthWest)	2011/3/22 11:10～11:30	^{131}I	10.50	3.4
		^{137}Cs	ND	

The government
requests Fukushima
Prefecture to gain
the readings above.

This 25-page long press release is filled with the similar technical readings as in the above example without further explanation. The following is another example of technical readings in this press release.

Readings of soil monitoring

□ : the readings in this thick-frame box are new.

Sampling Point	Sampling Time and Date	Nuclide	Radioactivity Concentration (Bq/Kg)	Reading (μ Sv/h)	Monitoring Point by Monitoring Car
【3-1】(About30kmNorthWest)	3/23 11:10	^{131}I	200,000	103 μ Sv/h	【33】
		^{137}Cs	45,000		
【3-2】(About30kmNorthWest)	3/23 13:17	^{131}I	92,000	15 μ Sv/h	【34】
		^{137}Cs	15,000		
【3-3】(About35kmWest)	3/23 12:50	^{131}I	11,000	2.3 μ Sv/h	【15】
		^{137}Cs	3,300		
【3-3】(About35kmWest)	3/24 12:58	^{131}I	4,900	2.5 μ Sv/h	【15】
		^{137}Cs	220		
【3-4】(About40kmNorthWest)	3/23 11:08	^{131}I	33,000	2.8 μ Sv/h	【11】
		^{137}Cs	8,600		
【3-5】(About50kmNorthWest)	3/23 10:30	^{131}I	4,200	2.8 μ Sv/h	【4】
		^{137}Cs	770		
【3-6】(About30kmWestNorthWest)	3/23 14:00	^{131}I	70,000	9.4 μ Sv/h	【21】
		^{137}Cs	12,000		
About25kmSouth) Vehcle-Borne	3/23 13:00	^{131}I	69,000	5.5~14.0 μ Sv/h	【71】
		^{137}Cs	2,600		
【3-8】(About25kmSouth) Vehcle-Borne Survey	3/23 16:22	^{131}I	140,000	5.5~14.0 μ Sv/h	【71】
		^{137}Cs	2,900		

Reassurance

Among the 160 texts collected from the website of Ministry of Foreign Affairs of Japan, the appearance of the theme of reassurance was detected 40 times (25%) , which accounts for the second most salient characteristic of the Japanese authorities' crisis communication. According to Oxford Dictionary, *reassurance* refers to "a statement that removes someone's doubts or fears" (Reassurance, n.d.). The data show that the Japanese authorities tried to lesson people's concerns and anxiety with the safety by repeatedly stressing that the current situation in Japan did pose no harm to health in most of the foreign press conferences and international conferences. The following are the examples to illustrate this.

On 12 April 2011, Japan announced that the Fukushima nuclear disaster reached Level 7, the highest level on the International Nuclear Event Scale (INES), which is the same severity rating as the 1986 Chernobyl disaster (Japanese Ministry of Economy, Trade and Industry, 12 April 2011).

After the announcement was released, the Japanese authorities tried to reassure people and the foreign countries by explaining this new assessment, pointing out the difference between the Fukushima nuclear disaster and the 1986 Chernobyl disaster and using the related international organizations' testimonies in various occasions (Ministry of Foreign Affairs of Japan, 14 & 19 April 2011). The following excerpt shows how they reassured other countries at an international conference on 19 April 2011.

> *First of all, however, I would like to emphasize that this new assessment does not mean that the situation in Fukushima is aggravating. Next, compared with the Chernobyl accident, the reasons and the aspects of the accident at the Fukushima are different. International institutions such as International Civil Aviation Organization (ICAO), International Maritime Organization (IMO) and World International institutions such as International Civil Aviation Organization (ICAO), International Maritime Organization (IMO) and World Health Organization (WHO) have made objective assessments that the excessive measures such as general travel restriction to Japan are not needed. I wish to request all countries to trust these assessments and respond calmly based on the scientific facts. (Ministry of Foreign Affairs of Japan, 19 April 2011)*

In addition, regarding the issue of radiation-contaminated tap water, the Japanese authorities also tried to reassure people by emphasizing that the radiation level of tap water was not dangerous and at the same time citing the related supporting statements from the World Health Organization (WHO).

On 23 March 2011, which is 11 days after the first hydrogen explosion at Fukushima Dai-ichi Nuclear Power Plant, the radioactive materials above the limit were detected in the tap water and people in the affected areas were warned not to feed their babies with tap water (Matsutani, 24 March 2011).

This sudden announcement did not provide background information, or information on what adults should do. Therefore, it triggered panic to the residents in the affected areas. As a consequence, supermarkets were immediately emptied of mineral water. In view of this, though at a later stage and less effectively, the Japanese authorities constantly reassured people (Ito & Fukue, 25 March 2011; Matsutani, 24 March 2011). The following statement from the Japanese authorities is one of the examples to illustrate this.

> *[Mr. Takeshi Matsunaga, Assistant Press Secretary of the Foreign Office]: These standards are precautionary, and the presence of some degree of radioactivity in tap water does not mean that it is unfit for human intake. Short-term consumption does not pose a significant threat to health because it would take long-term exposure to those levels of radiation to generate adverse health effects. (Ministry of Foreign Affairs of Japan, 26 March 2011)*

The data also show that the Japanese authorities repeatedly reassured not only the affected people in Japan, but also the other countries that the food products from Japan were safe and the higher radioactivity would not affect people's health in different press conferences and international conferences.

For example, the reasons why the increased radioactivity posed no threat to human health were elaborated frequently (Ministry of Foreign Affairs of Japan, 26 & 30 March 2011). The announcement by WHO that the high

radioactivity in Japan would pose no health risks to other countries was used to support their reassurance (Ministry of Foreign Affairs of Japan, 6 April 2011). Moreover, the rigorous quality control of food products for export was stressed in order to reassure the world that the food products from Japan were safe (Ministry of Foreign Affairs of Japan, 26 May 2011).

Showing gratitude

The data from the 160 collected articles of the Japanese authorities reveal 36 times (22.5%) that the Japanese authorities showed their gratitude to the foreign countries for their assistance in most of the international occasions including the press conferences held for the foreign media during the Fukushima nuclear disaster. Hence, showing gratitude becomes one of the most prominent characteristics of the Japanese authorities' crisis communication, which will be demonstrated in the following two excerpts.

> *Deputy Press Secretary Hidenobu Sobashima: Last Tuesday, 22 March, two days ago, Prime Minister Naoto Kan delivered his message of appreciation for such assistance, among others. He said "I would like to express my most sincere appreciation for the condolences and assistance Japan has received from approximately 130 countries, more than 30 international organizations, and people all around the world in response to the Tohoku-Pacific Ocean Earthquake." Prime Minister Naoto Kan: "On behalf of the Japanese people, I would like once again to express my deepest appreciation upon having received this truly tremendous outpouring of cordial assistance from around the world." (Ministry of Foreign Affairs of Japan, 24 March 2011)*

> *Last Monday was one month from the Great East Japan Earthquake which occurred on 11 March, and on the occasion of one month after the earthquake the Prime Minister issued his message to the world, thanking all the countries, territories, and international organizations, indeed all the people around the world, to thank them for the sympathy, condolences, and assistance offered. He thanked on behalf of the people of Japan, and extended heartfelt appreciation to the world. (Ministry of Foreign Affairs of Japan, 14 April 2011)*

Excuses as the response to criticism

Among the 160 texts collected from the website of Ministry of Foreign Affairs of Japan, the theme of excuses as the response to criticism was revealed 24 times (15%). This is mainly manifested in the Japanese authorities' response to the criticism from the media and other countries on the sudden discharge of 10, 000 tons of to some degree contaminated water into the sea without notifying the neighboring countries in advance, lack of transparency and incorrect information. The following are the examples how the Japanese authorities used excuses to respond to the criticism in these three areas.

1) Response to criticism for the sudden discharge of 10, 000 tons of to some degree contaminated water into the sea without notifying the neighboring countries in advance

According to the transcript of Press Conference by Minister for Foreign Affairs Takeaki Matsumoto on 5 April, 2011, 10, 000 tons of to some degree contaminated water was approved by the Japanese authorities to discharge into the sea at 7pm on 4 April 2011. Before the discharging, the Japanese authorities had already reported this to IAEA and notified the diplomatic corps at 4pm on 4 April 2011. However, this move made the Japanese authorities face criticism from home and abroad (Ministry of Foreign Affairs of Japan, 5 April 2011).

In response to criticism, the Japanese authorities tried to defend themselves with four main excuses: inevitable emergency measure, law based, no harm to human health and no negative impact on other countries, which are visible in the following response from the Japanese Minister for Foreign Affairs.

Minister: However, please understand first that the arrangement was made as an emergency measure based on a domestic law, namely the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors. In addition, the water does not have a significant adverse influence on human health. Accordingly, I do not think that the arrangement will cause an immediate problem in relation to obligations under international laws. However, with consideration of the necessity for providing the international community with appropriate information voluntarily, the fact of this case was reported to the IAEA. We mentioned the case in the regular briefing of April 4 for the diplomatic corps as well. Besides, we advised the diplomatic corps of the case by a fax message sent from MOFA…We do not think that the case affects other countries across the border at this stage…I think I have explained that we are providing of the international community with explanatory information as much as possible on a voluntary basis. (Ministry of Foreign Affairs of Japan, 5 April 2011)

2) Response to the criticism for lack of transparency

Regarding the management of the Fukushima nuclear disaster, the Japanese authorities were accused of lack of transparency by the media, for example, at the Press Conference by Minister for Foreign Affairs Takeaki Matsumoto on 18 March, 2011(Ministry of Foreign Affairs of Japan, 18 March 2011).

The Japanese authorities responded to this criticism mainly with the excuse of the unprecedented disaster (Tohoku-Pacific Ocean earthquake and tsunami), which made it difficult to gather all the information demanded by other countries immediately. They also stressed that no information was hidden from the public and the available information was provided in time. These could be seen from the answers of the Japanese Minister for Foreign Affairs Takeaki Matsumoto as follows.

Minister: …the government, for its part, has never thought about withholding information or what needs to be announced. It is a fact

that the Tohoku-Pacific Ocean earthquake was beyond imagination for many people in terms of not only its intensity but also the size of the tsunamis. Unfortunately, that caused immense damage, including the problems at the nuclear power plant. Amid this situation, we are providing in a timely manner all information that can be gathered, as well as explanation of the situation that can be gathered and explanation of the situation based on those information… we unfortunately do not necessarily have all the information that is sought… Frankly speaking, various questions have been raised, such as a question that cannot be answered unless you are constantly staying right next to the power plant. (Ministry of Foreign Affairs of Japan, 18 March 2011)

Furthermore, the Japanese authorities emphasized again the natural disaster as the main reason for the difficulty to obtain all the needed information, which is evident in the following speech by the Japanese Chief Cabinet Secretary Edano on 12 April 2011.

Chief Cabinet Secretary Edano: The instruments at the nuclear power plant failed to function because of power loss. Therefore, immediately after the accident, we were unable to have access to any data…Therefore, it has caused concern inside and outside of Japan about the lack of transparency of information, but I would like to assure you, whatever information and data that the government had possessed had been shared with the entire community of the world and in Japan without any delay and in the fullest accuracy. (Ministry of Foreign Affairs of Japan, 12 April 2011)

3) Response to criticism for incorrect information

Besides the criticism for discharging radiation-contaminated water to the sea and lack of transparency, the Japanese authorities were charged of continually providing incorrect information. For example, on 28 March 2011, an erroneous radiation reading which was 10 million times (later the reading was corrected as 100,000 times) higher than the normal was reported (Xinhua News Agency, 28 March 2011). The Japanese authorities were asked by the

media how to deal with this issue (Ministry of Foreign Affairs of Japan, 1 April 2011).

The Japanese authorities employed the excuses of the dilemma between accuracy and time, and the prompt correction of the wrong information, to respond to the criticism for providing incorrect information, which is shown in the following answer by the Japanese Minister for Foreign Affairs Takeaki Matsumoto.

> *Minister: ... it is true that striking a balance between the accuracy and promptness of delivering information is essential. From the viewpoint of the situation on the ground, however, the repeated confirmation of information will increase the accuracy of the information but it will take time as well... I think at least incorrect information has been corrected promptly. (Ministry of Foreign Affairs of Japan, 1 April 2011)*

Pledge of transparency

Among the 160 texts collected from the website of Ministry of Foreign Affairs of Japan, the theme of pledge of transparency was detected 21 times (13.1%). According to the data, the Japanese authorities repeatedly promised to the world that they would provide accurate timely information of maximum transparency in different occasions, including the international conferences and press conferences (e.g. Ministry of Foreign Affairs of Japan, 7, 15, & 19 April 2011; Ministry of Foreign Affairs of Japan, 26 May & 20 June 2011). The following is one of the examples to manifest this.

> *We will continue to provide the international community, especially neighboring countries, with prompt and adequate information with maximum transparency. (Ministry of Foreign Affairs of Japan, 26 May 2011)*

By now, the five themes, namely technical jargons, reassurance, showing gratitude, excuses as the response to criticism and pledge of transparency, which characterize the way how the Japanese authorities communicated the Fukushima nuclear disaster to the world (RQ 1) have been explained. However, the way how the Japanese authorities communicated the Fukushima nuclear disaster received criticisms by the media from home and abroad. Next, how the global media perceived and criticized the crisis communication of the Japanese authorities during the Fukushima nuclear disaster will be presented.

4.2 The Global Media's Perception on the Japanese Authorities' Crisis Communication (RQ 2)

A total of 120 news reports were collected from the websites of three key news agencies in the world, namely Xinhua News Agency from China, BBC from the UK, and the New York Times from the USA. Among the 120 news reports, 19 from Xinhua News Agency, 89 from BBC, and 12 from the New York Times, were coded and analyzed separately. For the category of perception of Xinhua News Agency, three themes, namely frustration, doubt, and criticism, emerged (Figure 2). For the category of perception of BBC, seven themes, namely doubt, direct criticism, frustration, fear, opinions of affected people, criticism on Tepco, and confirm Japanese claims, emerged (Figure 3). For the category of perception of the New York Times, five themes, namely direct criticism, frustration, criticism on Tepco, doubt, and stereotypes on Japanese culture, emerged (Figure 4).

After the emerged themes under the three categories are examined and compared with one another, five major themes, namely frustration, doubt, direct criticism, criticism on Tepco, and stereotypes on Japanese culture, which characterized the global media's perceptions on the Japanese authorities' crisis communication, emerged (Figure 5). In the following, each of the five major themes will be reported in detail.

Frustration

Among the 120 news reports collected from the websites of Xinhua News Agency, BBC, and the New York Times, 21 articles (17.5%) disclosed frustration, including direct criticism and complaints from other countries like Finland, China, and international organizations like International Atomic Energy Agency (IAEA), to manifest the media's perception on the Japanese authorities' crisis communication (e.g., Buerk, 15 March, 8 April, & 22 May 2011; LaFraniere, 17 March 2011; Mu, 17 March 2011; Tabuchi, Belson, & Onishi, 16 March 2011; Yan, 22 March 2011). For example, Jukka Laaksonen, Director of Finland's Radiation and Nuclear Safety Authority, was reported to directly criticize the emergency operations in Japan (Mu, 17 March 2011). China urged the Japanese authorities to provide timely and accurate updates on the Fukushima nuclear disaster (LaFraniere, 17 March 2011). Yukiya Amano, Director of IAEA, was repeatedly reported to complain about the difficulty to obtain prompt information from the Japanese authorities (e.g., Buerk, 15 March 2011; Tabuchi, Belson, & Onishi, 16 March 2011).

Doubt

Among the 120 news reports collected from the websites of Xinhua News

Agency, BBC, and the New York Times, 21 articles (17.5%) reveal the major

theme of doubt, which shows the global media's suspicion of the information

or statements provided by the Japanese authorities. Doubt was expressed

through showing the contradiction between what had really happened in Japan

and what the Japanese authorities told the world (e.g., Buerk, 12 March 2011;

Tabuchi & Bradsher, 11 April 2011; Yan, 12 & 22 March 2011). For example,

although the Japanese authorities already confirmed that some radioactive

materials had been released into the air and ordered evacuation of thousands,

they insisted saying no risk to people in the affected area (Buerk, 12 March

2011). Later, the Japanese authorities ordered to stop shipments of some food

products that were detected higher radiation levels, but at the same time

reassured people by saying no harm to health (Yan, 22 March 2011). The

following news excerpt is also one of the examples which manifest the media's

doubt by presenting contradiction to the readers.

> *Edano said the radiation around the Fukushima Dai-ichi plant had not risen after the blast, but had in fact decreased. He did not say why that was so. Officials have not given specific radiation readings for the area, though they said they were elevated before the blast: At one point, the plant was releasing each hour the amount of radiation a person normally absorbs from the environment each year. (Yan, 12 March 2011)*

Direct criticism

Among the 120 news reports collected from the websites of Xinhua News

Agency, BBC, and the New York Times, 16 articles (13.3%) reveal the major

theme of direct criticism. The media directly criticized the Japanese authorities'

inability to manage the nuclear crisis. For example, the media denounced the

Japanese authorities for poor crisis communication (Gregory, 16 March 2011),

and lack of timely and accurate information (Tabuchi, Belson, & Onishi, 16 March 2011). The following news excerpt is another example of the media's direct criticism.

> *Correspondents say the government has been accused of indecision and delay in tackling the crisis. ("Japan nuclear: PM Naoto Kan," 29 March 2011)*

Criticism on Tepco

Among the 120 news reports collected from the websites of Xinhua News Agency, BBC, and the New York Times, 7 articles (5.8%) reveal the major theme of criticism on Tepco. Although this major theme is not visible in the collected news reports from Xinhua News Agency, it is evident in those from BBC and the New York Times. The media criticized Tepco (Tokyo Electric Power Company), the nuclear power plant operator, by repeatedly reminding their readers of the cover-up history of Tepco. For example, Tepco falsified safety inspection records of some Tepco nuclear power plants in 2002 (Black, 12 March 2011; Gregory, 16 March 2011; Onishi, & Belson, 26 April 2011; Onishi, & Fackler, 12 June 2011; Tatsumi, 1 April 2011). It also forged safety records in 2006 and 2007 (Black, 12 March 2011). The following news excerpt is one of the examples to illustrate the media's criticism on Tepco.

> *Certainly, Tepco deserves the criticism that it has been receiving. For one thing, Tepco does not have a good record of managing nuclear accidents. Its responses to previous incidents have been severely criticised as "tardy" and "not forthcoming with timely information". In 2002 it was also revealed that Tepco had been forging safety inspection records of some of its nuclear power plants. This time, Tepco has been severely criticised as it may have underestimated the gravity of the situation in the first several days. (Tatsumi, 1 April 2011)*

Stereotypes on Japanese culture

Among the 120 news reports collected from the websites of Xinhua News Agency, BBC, and the New York Times, 1 article (0.8%) reveals the major theme of stereotypes on Japanese culture. Although this theme only appears in the New York Times, it may be of help to investigate whether stereotypes on Japanese culture may affect the media's perception on the Japanese authorities' crisis communication. When reporting IAEA's frustration with the crisis communication of the Japanese authorities, the media tried to explain this with indirect communication style in Japanese culture (Tabuchi, Belson, & Onishi, 16 March 2011). The following is the news excerpt to illustrate this.

> *The less-than-straight talk is rooted in a conflict-averse culture that avoids direct references to unpleasantness. Until recently, it was standard practice not to tell cancer patients about their diagnoses, ostensibly to protect them from distress. Even Emperor Hirohito, when he spoke to his subjects for the first time to mark Japan's surrender in World War II, spoke circumspectly, asking Japanese to "endure the unendurable." (Tabuchi, Belson, & Onishi, 16 March, 2011)*

By now, the five major themes of the global media's perception on the Japanese authorities' crisis communication, namely, frustration, doubt, direct criticism, criticism on Tepco, and stereotypes on Japanese culture, have been explained. The data reveal that doubt can be seen through displaying the contradiction between what incidents had happened and what the Japanese authorities said, while frustration can be visible through the reports on how other countries and international organizations, such as the International Atomic Energy Agency (IAEA), criticized the Japanese authorities' crisis communication. Direct criticism on the Japanese authorities' crisis

communication is also evident in the critical comments by the media.

Moreover, the data show that the media criticized Tepco for its cover-up

tracked record. However, only one collected news report shows that the media

perceived the Japanese authorities' crisis communication through the lens of

their stereotypes on Japanese culture. Next, the reasons why the global media

criticized the Japanese authorities' crisis communication will be discussed.

5 DISCUSSION

According to the Report of Japanese Government to the IAEA Ministerial

Conference on Nuclear Safety - The Accident at TEPCO's Fukushima Nuclear

Power Stations (Nuclear Emergency Response Headquarters, Government of

Japan, 2011), 155 press releases were sent out and 182 press conferences were

held, hundreds of reports were sent to IAEA, and about 100 inquiries from

IAEA were replied to as of 31 May 2011 (p. IX-2, IX-7). Furthermore, after the

outbreak of the Fukushima nuclear disaster, 46 briefings to the diplomatic

corps in Tokyo were held as of 11 May 2011, and the emergency notices were

communicated and explained to the neighboring countries and other countries

(p. IX-8).

From this report and the data collected from the website of

Ministry of Foreign Affairs of Japan (http://www.mofa.go.jp/), it can be seen

that the Japanese authorities put much effort to provide other countries, the

international organizations and the global media with information about the

status of the disaster. The Japanese authorities also informed the Japanese

media. However, the data collected from the Xinhua News Agency, BBC, and

the New York Times show that the Japanese authorities continually received

criticism from other countries and the global media on their crisis communication. What made the global media criticize the Japanese authorities' crisis communication? In the following, this problem will be discussed in detail.

5.1 Reasons Why the Global Media Criticized the Japanese Authorities' Crisis Communication

Although the Japanese authorities have done a large amount of work on communicating the Fukushima nuclear disaster, the findings reveal that sufficient explanations of the technical readings were missing, which caused confusion and doubt to the public and the global media. This point is also emphasized in the Report of Japanese Government to the IAEA Ministerial Conference on Nuclear Safety - The Accident at TEPCO's Fukushima Nuclear Power Stations (Nuclear Emergency Response Headquarters, Government of Japan, 2011, p. IX-3) and the official report of The Fukushima Nuclear Accident Independent Investigation Commission Executive summary (The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 36).

As a crisis generates an excessive degree of uncertainty (Seeger et al, 1998), the stakeholders need explanation of technical information in order to reduce the uncertainty (Stephens & Malone, 2009). However, during the Fukushima nuclear disaster, the press releases by the Japanese authorities involved a large amount of nuclear scientific jargons without the adequate explanations, which would probably make it hard for the majority of laypeople and the global media to understand. Hence, the needs of the stakeholders including the media to comprehend the technical information provided by the

Japanese authorities in a bid to reduce the uncertainty could not be satisfied, which is one of the reasons why the media criticized the Japanese authorities.

In addition, according to Nuclear Communications: A Handbook for Guiding Good Communications Practices at Nuclear Fuel Cycle Facilities (International Atomic Energy Agency, 1994), crisis communication should be clear, accurate, easy-to-understand and consistent. It must directly address the needs and concerns of the public. It also stresses that technical jargons should be avoided, as it would cause misunderstanding or non-understanding among the general public and the media. The principle of KISS ((keep it short and simple) is recommended. Compared against this recommendation of avoiding technical jargons (Covello, 2003; International Atomic Energy Agency, 1994), the Japanese authorities' crisis communication seemed unable to achieve this.

What if the technical jargons have to be used during crisis communication, for example, in the technical readings? It would be better if the technical information could be explained clearly and sufficiently, so that the public and the media could have a better understanding. However, the detailed explanation of technical jargons takes time.

The Japanese authorities were also criticized for lack of transparency, because the information needed by other countries, media and the international organizations could not be provided promptly. However, as explained by Chief Cabinet Secretary Edano at the Prime Minister's Office for members of the foreign press on 12 April 2011, the unprecedented earthquake and tsunami made it very difficult to access to the data (Ministry of Foreign Affairs of Japan, 12 April 2011). According to the official report of the

Fukushima Nuclear Accident Independent Investigation Commission

Executive summary, the tsunami destroyed almost everything, such as

buildings, machines, and power supplies. It was very difficult to enter into the

Fukushima Dai-ichi Nuclear Power Plant. In addition, due to the loss of

electricity, the monitoring and control equipment in the central control room

could not function (The National Diet of Japan Fukushima Nuclear Accident

Independent Investigation Commission, 2012). Facing such difficulty, it would

be impossible for the Japanese authorities to promptly collect verify and report

all the information required by other countries and the media especially the

information which could not be available except if the workers could stay next

to the power plant at that time (Ministry of Foreign Affairs of Japan, 18 March

2011).

According to the crisis communication guideline of acknowledging

uncertainty (Sandman, 2004; Seeger, 2006), for the uncertainties, the Japanese

authorities should have frankly told other countries and media that certain

information, for example, the cause of the crisis, was not available yet because

of what kind of difficulties and obstacles they had. However, the data did not

show the uncertainty acknowledgement from the Japanese authorities. Since

the Japanese authorities could not provide all the information required by other

countries and the media and did not recognize the uncertainty, they were

suspected of hiding the information and criticized for lack of transparency.

This is the second reason why the global media criticized the Japanese

authorities.

The global media also criticized the Japanese authorities for

providing the incorrect information, for example, on 28 March 2011, Tepco

reported an erroneous radiation reading which was 10 million times (later the reading was corrected as 100,000 times) higher than the normal. First, the wrong information was provided by Tepco and the Japanese authorities relied on Tepco for information. It was not the Japanese authorities who provided the incorrect information. Second, the Japanese authorities should have verified the radiation reading before it was released to the public. However, the Japanese authorities shared the dilemma between accuracy and promptness of delivering information (Ministry of Foreign Affairs of Japan, 1 April 2011).

The Japanese authorities were also criticized for the sudden discharge of 10, 000 tons of to some degree contaminated water into the sea without notifying the neighboring countries in advance. The findings reveal that before the discharging, the Japanese authorities had reported it to IAEA and notified the diplomatic corps at 4pm on 4 April 2011, i.e. 3 hours before the discharging (Ministry of Foreign Affairs of Japan, 5 April 2011). As this was an emergency measure under the high pressure of time, it had been taken before the neighboring countries were entirely notified via the diplomatic channels (Nuclear Emergency Response Headquarters, Government of Japan, 2011, p. IX-12), but the Japanese authorities did notify IAEA and the neighboring countries 3 hours in advance.

The company Tepco and the Japanese authorities were also criticized for not acting on earlier signs and preventing the risks from developing into a crisis. According to the official report of the Fukushima Nuclear Accident Independent Investigation Commission Executive summary, the Fukushima nuclear disaster "was a profoundly manmade disaster – that could and should have been foreseen and prevented" (The National Diet of

Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 9), because the operator Tepco and the regulator, the Nuclear and Industrial Safety Agency (NISA) already knew the risks of loss of electricity and reactor core damage if the Fukushima Dai-ichi Nuclear Power Plant were hit by a tsunami bigger than the level estimated by the Japan Society of Civil Engineers in 2006. However, the risks were ignored and no counter-measures were prepared (The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 16).

The Japanese authorities were also criticized for not providing enough information to citizens, as Japanese citizens called for more detailed information. This is visible in the following news excerpt.

> *He [Taka Sakai, an IT engineer working in the Akasaka region of the city] was also annoyed about the lack of information being made available to him, his family and his colleagues and feared that the government may be suppressing information to keep the public calm. (Tang, 16 March 2011)*

However, the Japanese authorities tried to lesson people's anxiety by repeatedly stressing that the current situation in Japan did pose no harm to human health (e.g., Ito & Fukue, 25 March 2011; Matsutani, 24 March 2011). Such reassurances in the absence of detailed instructions or explanations tend to work oppositely, as they may create anxiety and invite criticism.

In addition, the Japanese authorities were criticized for not explicitly addressing the unfavorable situation. Stereotypes on Japanese culture were used to explain the criticism in one news report (Tabuchi, Belson, & Onishi, 16 March 2011).

Since stereotypes would affect perception on people, groups or situations (Gannon & Pillai, 2012; Samovar et al., 2012), and hinder the successful intercultural communication (Lehtonen, 2005; Samovar et al., 2012), the following section will explore whether stereotypes might be an added reason for criticism.

5.2 Stereotype as an Added Reason for Criticism

The crisis responsibility plays an important role in shaping stakeholders' perception on the organization (Coombs, 2010b).The situational crisis communication theory (SCCT), which studies the stakeholders' perception on crises, identifies that people will attribute the most crisis responsibility to the organization if the cause of a crisis is human error (Coombs, 2010b). A crisis induced by human error refers to a crisis caused by people's inappropriate conduct (Coombs & Holladay, 2010), e.g. negligence of risks.

According to SCCT (Coombs, 2010b), in this sense, the Fukushima nuclear disaster was perceived as a human error induced crisis, as it was preventable. The Japanese authorities and Tepco were attributed blame because if they had done undertaken action in 2006, for example, the Fukushima nuclear disaster might not have happened. The Fukushima nuclear disaster was initiated by a tsunami, but still a "manmade disaster" (The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 9).

In addition to the causes of a crisis, the two intensifiers in SCCT, i.e. the crisis history and previous reputation of an organization, can help shape the stakeholders' perception on the responsible organization (Coombs, 2010,

p.39). If an organization had the similar crisis in the past, the stakeholders would assign bigger crisis responsibility to the organization (Coombs, 2004). Furthermore, if an organization's previous reputation of handling a crisis is unfavorable, the stakeholders would also assign bigger crisis responsibility to the organization (Coombs & Hollday, 2002).

Regarding these two intensifiers, i.e., the crisis history and previous reputation of an organization (Coombs, 2010b, p. 39), Tepco has both. It experienced the similar crisis in 2007. On 16 July 2007, its Kashiwazaki-Kariwa nuclear power plant was hit by a powerful earthquake of a magnitude of 6.8, which caused a fire in the power plant. Tepco first reported that no radiation released ("Japan rocked by major earthquake," 16 July 2007), but about six hours later it acknowledged that a small amount of radioactive water was leaked into the sea ("Nuclear scare after Japan quake," 16 July 2007).

Moreover, it has the negative reputation of cover-up history (Grimston, 6 July 2012; Onishi & Belson, 26 April 2011; Tatsumi, 1 April 2011). In 2002, it falsified the safety inspection records (Tatsumi, 1 April 2011) and in 2006, it revealed that its temperature records at Fukushima in 1985 and 1988 were forged too (Grimston, 6 July 2012).

According to the official report of the Fukushima Nuclear Accident Independent Investigation Commission Executive summary, the Fukushima nuclear disaster "was the result of collusion between the government, the regulators and TEPCO, and the lack of governance" (The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 16), caused by the tight relations among these three. In addition, the

Japanese authorities had not controlled the industry well enough, as they knew the Fukushima Dai-ichi Nuclear Power Plant was not safe enough, but did not act on it. During the disaster, the Japanese authorities were in charge of crisis management, and Tepco had a supporting role in the nuclear disaster response group. Furthermore, in any country, it is also the responsibility of the authorities to oversee safety and control nuclear power plants.

It was also the Japanese authorities' responsibility to obtain, verify and provide the accurate and timely information for the public and the media. However, the Japanese authorities primarily relied on Tepco for information (Suzuki & Kaneko, 2013), who provided the inaccurate information in some occasions, for instance, the wrong radiation reading (Xinhua News Agency, 28 March 2011). As a result, the Japanese authorities, who were in charge of crisis management, explicitly pointed out it was Tepco's mistakes (Ministry of Foreign Affairs of Japan, 28 March 2011), and found excuses for the mistakes of providing the wrong information in front of the global media (e.g., Ministry of Foreign Affairs of Japan, 1 April 2011).

Due to the mistakes of Tepco, e.g. providing the erroneous radiation reading, the Japanese authorities were also criticized by the media for providing incorrect information (Ministry of Foreign Affairs of Japan, 1 April 2011). It can be seen that the media perceived the Japanese authorities and Tepco were in the same group, Fukushima nuclear disaster response group. The Japanese authorities received criticism for Tepco's mistake because of their inability to fulfil their duty of supervising and managing the nuclear plant operator properly. The findings also reveal that the global media had doubt, and criticism from the first beginning of the Fukushima nuclear disaster.

In addition, the findings show that one news report employed stereotypes on Japanese culture to explain the criticism for not providing timely information (Tabuchi, Belson, & Onishi, 16 March 2011). Therefore, possibly, stereotypes on Japanese culture might be an added reason for criticism. Although only one news report is not strong enough to confirm this hypothesis, it may offer a reason for future research on the relationship between stereotypes and blame in crises.

All groups of people stereotype (Adler & Gundersen, 2007; Gannon et al., 2012), including the media. Stereotypes make the over-generalized assumption without the consideration of individuals' distinctiveness in a group (Adler & Gundersen, 2007; Fong & Chuang, 2004; Gannon et al., 2012; Jandt, 2012; Samovar et al., 2012). Holding stereotypes of Japanese culture, the media, in particular, the New York Times explained why IAEA found it difficult to obtain timely information from the Japanese authorities with Japanese culture (Tabuchi, Belson, & Onishi, 16 March 2011).

It is known that once people have a generalized stereotype, it would be difficult to modify this, even after the true facts or evidence are presented (Adler & Gundersen, 2007; Crocker &Weber, 1983; Samovar et al., 2012), as the rigid stereotype would subconsciously block the truth out (Adler & Gundersen, 2007; Samovar et al., 2012). Even though the Japanese authorities presented the counter-proofs and pledged transparency many times, the criticism continued. In the case of stereotypes, one would be misunderstood, treated unfairly and prejudiced against (Fong & Chuang, 2004). In this case, for example, the Japanese authorities did notify IAEA and the neighboring countries of releasing 10, 000 tons of contaminated water into the sea, if only

three hours in advance, but still received criticism for lack of transparency (Ministry of Foreign Affairs of Japan, 5April 2011).

As a stereotype can impact or distort the stakeholders' perception on reality (Gannon & Pillai, 2012; Samovar et al., 2012), the factor of stereotype may be considered as one of the factors which would affect the stakeholders' perception on crises. The situational crisis communication theory (SCCT) asserts that anger from the stakeholders intensifies the crisis responsibility (Coombs & Holladay, 2007). However, the stereotype factor is not included in SCCT yet (Coombs, 2010b).

Nevertheless, in the contingency theory, among the external factors that may change an organization's stance in the crisis response, there is a factor which is "Public's perception of group: reasonable or radical" (Pang et al., 2010, p. 546). This external factor is in a sense related to the factor of stereotype, but somehow different from each other. It is suggested that the factor of stereotype may be included into the external variables in the contingency theory to examine how the factor of stereotype held by the stakeholders could affect the organization's crisis response stance.

Because a stereotype is one of the reflections of ethnocentrism (Bennett, 1986), both ethnocentrism and stereotype are considered to hinder intercultural communication (Lehtonen, 2005; Neuliep & McCroskey, 1997; Samovar et al., 2012), and ethnocentrism is one of the major challenges to intercultural crisis communication (Coombs, 2010c), it is important to include the factor of stereotype held by the stakeholders into intercultural crisis communication and study how to properly use stereotype to improve

intercultural crisis communication. This further emphasizes the significance of the consideration of the cultural factors, especially the intercultural communication when studying and practicing crisis communication (Adkins, 2010; Coombs, 2010c; Elmasry & Chaudhri, 2010; Gilpin & Murphy, 2010; Huang, 2006; Huang, Lin & Su, 2005; Lee, 2005; Nikolaev, 2010; Pang et al., 2010).

6 CONCLUSION

6.1 Meeting the Aim

With the motivation of contributing to further development of the emerging field of intercultural crisis communication, the study aims at exploring the reasons why the global media criticized the Japanese authorities' crisis communication during the 2011 Fukushima nuclear disaster through the inductive content analysis on both the Japanese authorities' crisis communication and the global media's perceptions on the Japanese authorities' crisis communication.

In order to meet the above aim, the study sought to answer the following two research questions:

RQ 1: How did the Japanese authorities communicate the Fukushima nuclear disaster to the world?

RQ 2: How did the global media perceive the Japanese authorities' crisis communication?

The key empirical findings of this study will be synthesized to address these two research questions in the following.

RQ 1: How did the Japanese authorities communicate the Fukushima nuclear disaster to the world?

The findings reveal that the Japanese authorities' crisis communication is distinguished by five main characters, i.e. technical jargons, reassurance without detailed explanations, showing gratitude, excuses as the response to criticism, and pledge of transparency (Figure 1), admitting that the disaster could have been prevented.

First, a massive amount of technical jargons was used, but without sufficient explanations, which caused misunderstanding and frustration to the public and the media.

Second, reassurance but without further details was frequently given at most of the press conferences for the foreign media and international conferences to try to reduce or disperse people's concerns and anxiety.

Third, gratitude was often shown to the world for the assistance during the Fukushima nuclear disaster at most of the international occasions attended including the press conferences held for the foreign media.

Fourth, excuses were used as the response to the criticisms from the media and other countries for delayed information, lack of transparency and incorrect information.

Fifth, transparency was pledged constantly in different occasions, including the international conferences and press conferences that the accurate and timely information of maximum transparency would be provided.

RQ 2: How did the global media perceive the Japanese authorities' crisis communication?

The findings show that the global media's perception on Japanese authorities' crisis communication was featured by five themes, i.e. frustration, doubt, direct criticism, criticism on Tepco, and stereotypes on Japanese culture (Figure 5).

First, frustration was manifested by describing disappointment, direct criticism, and complaints from other countries and international organizations.

Second, doubt was often expressed to show the suspicion of the information or statements provided by the Japanese authorities through the contradiction between different statements by the Japanese authorities and what had really happened in Japan.

Third, direct criticism was expressed straight by the media themselves, e.g. by pointing at reasons for the disaster.

Fourth, criticism focused mostly on Tepco and the Japanese nuclear industry by repeatedly recalling the cover-up history of Tepco, and some other past incidents in the industry.

Fifth, in one collected news report, stereotypes on Japanese culture of avoidance of explicitly referring to unfavorable content was used to explain why IAEA found it hard to obtain timely information from the Japanese authorities (Tabuchi, Belson, & Onishi, 16 March 2011). Although this in itself could not prove that the global media perceived the Japanese authorities' crisis

communication through the lens of stereotypes, it could be a reason for further research on the relationship between stereotypes and blame in crises.

Based on the above answers to the two research questions, the study has identified the following main reasons why the Japanese authorities received criticism. To some extent, all other governments would be critically approached for such reasons.

First, the 2011 Fukushima nuclear disaster, although triggered by the unprecedented earthquake and tsunami, was "a profoundly manmade disaster – that could and should have been foreseen and prevented" (The National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission, 2012, p. 9). In this case of human error induced crisis (Coombs, 2010b), the stakeholders attributed blame to Japanese authorities and Tepco.

Second, the radiation-related jargons were not explained sufficiently, which caused confusion and non-understanding to the public and the media. As a result, the needs of stakeholders including the media to reduce uncertainty were not met.

Third, the Japanese authorities tried to prevent panic by repeated reassurance, but without detailed explanations, which caused doubt on the Japanese authorities' credibility.

Fourth, recognition of uncertainty was absent, which induced criticism for lack of transparency.

In addition, possibly, stereotypes on Japanese culture might be also added to the above reasons. However, there is only one news report for that,

which is not strong enough to confirm this hypothesis. Moreover, the factor of stereotype is not yet considered in the major crisis communication theories, for example, SCCT (Coombs, 2010b), and the contingency theory (Pang et al., 2010).

6.2 Limitation

This study conducted through the inductive content analysis has offered a new insight in the field of crisis communication that the factor of stereotype might be considered when investigating the stakeholders' perceptions. However, it is subject to a number of limitations which not only suggest the future research directions, but also need to be considered.

First, as the content analysis has difficulty in detecting the unnoticed messages related to the research questions and is restricted to "recorded messages" (Berg & Lune, 2011, p. 376), some data may be overlooked during the data collection and analysis in this study.

Second, the data collected to analyze the global media's perceptions on the Japanese authorities' crisis communication was limited to only three global news agencies, which could not sufficiently represent the perceptions and attitudes of other media in the rest of the world.

Third, the data were only sourced from the press releases, transcripts of the foreign press conferences and the speeches delivered at the international conferences by the Japanese authorities, and the news reports from the three selected global news agencies. The findings would have been more prominent and convincing if another research method, interview, for example, with the Japanese authorities and the global news agencies were

applied too, as the content analysis can be jointly used with other qualitative research methods (Mayring, 2000).

Fourth, as the study primarily focuses on press relations, the investigation on the Japanese authorities' crisis communication does not include direct communication with citizens through other channels.

Fifth, the findings of this study are only the inference from the data, and not yet tested empirically, which needs further research to test how stereotypes affect the perceptions of stakeholders during a crisis.

6.3 Implication and Future Research Directions

This study was motivated by an ambition of contributing to further development of the emerging field of intercultural crisis communication. The findings provide the new insights for the field of crisis communication, and suggest further research directions and recommendations.

Although the empirical findings could not sufficiently prove that the global media perceived the Japanese authorities' crisis communication through the lens of stereotypes on Japanese culture, it may offer a new insight into the theoretical or empirical study of crisis communication that the factor of stereotype could be considered when investigating the stakeholders' perceptions.

Moreover, by discussing the stereotype's impacts on people's perceptions, the cultural awareness of the responsible national authorities and the global media would be enhanced when dealing with intercultural crisis communication.

In addition, it is suggested that the global media should be aware of the stereotype's impacts on their perceptions on the reality, and modify their stereotypes based on the facts emerged later. The national authorities are also suggested to be mindful of the stereotype's impacts on stakeholders' perceptions and apply the suitable approaches to frame the stakeholders' perceptions ahead.

As the findings about the factor of stereotype provide a new insight for further development of the field of crisis communication, there is a need for more case studies at the global level to further investigate and test how stereotypes affect the perceptions of stakeholders during a crisis, and explore the relationship between stereotypes and the attributions to crisis responsibility, and search for the suitable crisis communication strategies to tackle the stereotype-induced negative perceptions held by the stakeholders. This suggestion of future research direction will further enrich and improve SCCT (Coombs, 2010b).

In addition, future research is suggested to examine how the factor of stereotype held by stakeholders could affect the organization's crisis response stance along a continuum from advocacy to accommodation (Cancel et al., 1997), which will further advance the collection of different variables that affect the organization's crisis response stance in the contingency theory (Cancel et al., 1997).

Moreover, future researches can explore more perspectives of intercultural communication which can help improve crisis communication at the international level, and develop the emerging field of intercultural crisis

communication by further integration of the knowledge and expertise in both fields of crisis communication and intercultural communication.

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