Research on Sustainable Supply Chain Management of Multinational Corporations under the Supervision of Non-Government Organizations

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Research on Sustainable Supply Chain Management of Multinational Corporations under the Supervision of Non-Government Organizations

By

JIANG Jinna

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in Partial Fulfillment of
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ABSTRACT

Corporate Social Responsibility (CSR) essentially reflects various expectations of society to business organizations. Meanwhile, issue management theory regards an issue as a gap between social expectations and corporate actions. Non-Government Organizations (NGOs), as external stakeholders of business organizations, express social concerns for a certain phenomenon to the business community. Multinational Corporations (MNCs) encounter diversified social expectations due to their business characteristics, especially in terms of Sustainable Supply Chain Management (SSCM), the diversity of social, economic and environmental issues often makes the social responsibilities of MNCs prone to falling into social controversies and business criticisms. Previous issue management theory suggested that an individual company may under-respond to the diversification of issues related to social responsibilities due to lack of understanding or cognition of social expectations. However, the existing issue management theory has not fully discussed the issue cognition mechanism that triggers an organization narrowly estimate or perceive the social expectations, or provided possible solutions for issue myopia.

The diversities in CSR policies of the supply chain embody the characteristics of CSR management, which are bound to such as corporate values and cultures, corporate governance, senior managers' ethical standards, risk control capabilities, response strategies, compliance operations. Meanwhile, social expectations involved in supply chain are complicated especially for MNCs whose suppliers located throughout the world. Public concerns of the sustainable supply chain often expose the MNC to criticism and controversy from NGOs.

For the aforementioned reasons, this research objectives of this study are to explore the issue cognition mechanism of an individual organization in the context of issue management theory. The objectives of this study are to answer the question why there is a gap between the MNCs' actions and the society's expectations in the SSCM and how to explain the role of NGOs in MNCs' SSCM.

Theoretical analysis and case study are conducted with a combination of existing theories and practical cases in order to solve the research objectives proposed. Also, we supplement the deficiencies in previous theoretical studies of issue management theory. Initially, the theoretical review is carried out to probe into and review previous studies. Moreover, for verifying the potential existence of an issue cognition mechanism of an individual organization and exploring factors influencing this mechanism, a detailed case study was conducted.

Chapter 1 is the introduction of the study. Chapter 1 stated the background, the basis, the significance and the objectives for the research, and the methods mean we used in the research.

Chapter 2 is a theoretical review. Chapter 2 expounded the theoretical basis of the
study and provided preconditions for further theoretical expansion.

The first section briefly introduced the research and concepts related to CSR and Sustainable Supply Chain Management (SSCM) of MNCs. SSCM issues involved the economic, social and environmental issues in the supply chain, which reflected the challenges of CSR faced by MNCs in supply chain management. Suppliers are important stakeholders for business organization, and the stakeholders of suppliers are also identified as the stakeholders of the MNCs. Therefore, the supplier's CSR affects the social responsibilities of the MNC as the core in the supply chain.

The second section sorted out the theory of sensemaking and enactment from the perspective of organizational cognition theory. Sensemaking and enactment theory are the meta-theories to study the organizational process. In the theoretical category, the interaction between organization and the environment affects the organization's cognition. Organizational cognition is a continuous process, and the organizational cognitive mechanism determines the behavioral choices of organizations. Enactment theory emphasizes the subjective consciousness and initiative in the cognitive process without ignoring the role of external environmental stimuli. Some scholars have paid attention to the dynamic process of CSR-cognition construction that implied in the interaction process of business and society. Communication is the channel for the organization to perceive the external environment, and the importance of communication to organizational sensemaking has been highlighted in the enactment theory. However, the role of communication in the process of organizational sensemaking has not been adequately discussed in the CSR field.

The third section elaborated the issue management theory from different theoretical levels. First, the definition of an issue is discussed. In the study, we adopted the definition from the Issue Management Council. An issue is a gap between an organization's actions and stakeholder expectations. Moreover, Issue management is the process used to close that gap. Second, the discussion was conducted according to two theoretical levels of issue management theory. At the macro level, we outlined the researches on issue life cycle with emphases of interaction trajectory between the business community and society. At the individual level, the issue management theory was reviewed, and the theoretical premises was analyzed. Thirdly, we discussed the issue myopia theory related to the cognitive process of issue transformation from the macro to the individual level and pointed out the theoretical deficiencies in previous researches on the issue cognition mechanism of an individual organization.

Chapter 3 is the theoretical conception and deduction. Chapter 3 proposed the theoretical deduction on the issue cognition cycle and put forward a model of issue cognition mechanism.

The first section proposed the premise of the theoretical conception and deduction in the study. Firstly, the significances of issue management for SSCM of MNCs were discussed. Understanding social diversity expectations are of essences for the responsible business organization. Meanwhile, social expectations involved in supply chain are complicated especially for multinational companies whose suppliers located throughout
the world. MNCs need to understand the social expectation under different backgrounds. Because of issue management theory is oriented by social expectations, process-oriented and prospective, and different analytical levels of issue management theory are instrumental in coping with the complexity of social expectations. Therefore, we argue that issue management theory is of great significance for MNCs to cope with diversified social expectations in the construction of the sustainable supply chain. Secondly, we analyzed necessities of exploring issue cognition mechanism of individual organizations. Firstly, previous studies have proposed the potential adverse effects on CSR practices caused by insufficient issue cognition, but without clarifying the cognitive mechanisms that lead to the phenomenon. Secondly, enactment theory on organizational cognition enlightens us to discuss the issue cognition mechanism of an individual organization. Thirdly, factors that impact the issue cognition mechanism of an individual organization need to be explored. Finally, performances of some MNCs in the construction of the sustainable supply chain is criticized by society. Therefore, the significance of discussing the issue cognition mechanism of an individual business organization were demonstrated form the practical and theoretical perspective.

The second section proposed the model of issue cognition cycle, for illuminating the potential existence of an issue cognition mechanism of an individual organization. First, we discussed gaps between the issue cognition of an individual organization and social expectations taking the issue management theory as the theoretical context. Second, we proposed the theoretical deduction on issue cognition mechanism. Combined with enactment theory, we viewed the process of issue cognition includes the following dimensions. The third section is on case selection of the case study.

Chapter 4 is the case statement. Chapter 4 presented the interaction process between Apple and China’s environmental NGOs (represented by IPE) on environmental issues in sustainable supply chain management of the IT industry according to issue life cycle theory.

Chapter 5 is the case analysis. Chapter 5 carried on two parts of analysis on the case. The first section is the discussion of cognitive changes of Apple’s Issue cognition, to verify the existence of an issue cognition mechanism of an individual organization. We depicted Apple’s “cognitive relationship schema” based on identifiable actions at each stage to reflect Apple’s cognition both on the issue and on the responsible relationship between itself and the stakeholders involved. The variation in cognition diagram reflected the cognitive changes of Apple in the environmental issues in the supply chain. We found that Apple underwent some changes both at the action and cognitive levels as the issue progressed. Therefore, Apple not only alleviated the social pressure it faced but also broke through the previous cognitive limitation on the environmental impacts of the supply chain through the dialogues and communication with NGOs.

The second section is the discussion on the operational mode of the issue cognition mechanism. Combined with the issue cognitive model put forward in the previous part, the possible reasons for the change of Apple’s issue cognition are explained from the perspective of the transformation of issue cognition mechanism. We identified two operational modes of the issue cognition mechanism. The internal-oriented mode of the
issue cognition mechanism is named as the Monologue Mode of Issue Cognition. The synergetic-oriented mode of the issue cognition mechanism is named as the Dialogue Mode of Issue Cognition. The variations in the issue cognition mechanism promote the changes occurred in Apple's cognition reflected in the cognitive relationship schema. Communication and dialogue with NGOs facilitate the transformation of the operation mode of Apple’s issue cognition mechanism, breaking through cognitive limitation of individual organizations.

The third section proposed some features reflecting in the issue cognition mechanism of an individual organization including dynamic nature of issue cognition, Individual Variations among Organizations and the feedback System stimulate the development of the issue life cycle in the macro environment.

The fourth section is a brief summary for the above discussion. The section summed up that the variations in the issue cognition mechanism promote the changes occurred in Apple’s cognition reflected in the cognitive relationship schema. Communication and dialogue with NGOs facilitate the transformation of the operation mode of Apple’s issue cognition mechanism, breaking through the cognitive limitation of individual organizations.

Chapter 6 is the conclusions and future research. Chapter 6 summarized the research and conclusions.

The first section is a summary of previous chapters to sort out the research content of this study. The second section is a statement of conclusions of the research. Through the above analysis, the following conclusions are drawn in this study: Firstly, a cognitive barrier for an individual organization in CSR issues caused a gap raised between a gap between the MNCs’ actions and the society society’s expectations in the SSCM. Secondly, issue cognition mechanism is a fundamental cause of determining issue cognition of an individual organization. Thirdly, issue cognition mechanism has different operation modes, which directs organizational practices of issue management at the level of individual organizations. Cognitive improvement is a prerequisite to conduct effectively issue management of individual organizations, whereas dialogues with stakeholders stimulate the issue cognition. Communication with stakeholders not only mitigates potential social criticism but also provides an individual organization with opportunities to circumvent the cognition limitations. Finally, NGOs serves as the information channel facilitating organizations to perceive potential social expectations and are conducive to mitigate the cognitive limitation of an individual business organization. NGOs are conductive to mitigate the underreaction of MNCs to diversified social expectations in the establishment of the sustainable supply chain, thereby improving CSR behaviors.

The third section is a description of the research contributions and implications. The contributions of the study involved both theoretical and practical dimensions. First of all, the study carried out a unique and original study on the issue cognition mechanism of an individual organization under the theoretical context of issue management theory. Secondly, a theoretical model was proposed to analyze the issue cognition mechanism. The original model of the study provided a reference for analyzing the issue cognition
mechanism of an individual organization and for future research on the field of issue management theory. Thirdly, through the case study, the possible operation modes of the issue cognition mechanism were discussed, and the impacts of stakeholder communication on issue cognition mechanism of individual organizations were proposed. At last, from the perspective of practical dimension, this study verified the impacts of NGO’s participation and supervision on the environmental issues in the sustainable supply chain of MNCs, especially the role of NGOs that established in developing countries.

The fourth section is a description of the research limitation and suggestions for future research. This study has made some theoretical and practical contributions. However, like any research, this study has some limitation and deficiencies, and we recommend them as future research directions.

First, SSCM of MNCs is a term covering various issues of social responsibilities in the supply chain, such as economic, environmental, and social issues. The case selected in this study focalized the environmental issue and discussed in detail. Meanwhile, economic issues and social issues in SSCM are also worthy of further discussion and exploration. For one thing, a comprehensive study of relevant issues of supplier social responsibility is conducive to supplement the theoretical framework of this paper further. On the other hand, social concerns about labor rights issues of supplier’s employee have continued to rise, especially in China, Japan other Asian regions. Given the political sensitivity of related issues in different regions, the role of NGO supervision or criticisms in social issues of the supply chain needs further discussion. Therefore, future researches will be extended to economic and social issues related to the social responsibility of suppliers.

Second, this study benefited from the transparency of relevant information, which makes a systematical and detailed case study on the events is workable. However, an in-depth study of cognitive mechanisms is inseparable from the exploration of internal factors that affect organizational cognition. In future research, we will obtain more information through interviews to support studies on internal cognitive factors affecting cognitive mechanism, which will help to elaborate and supplement the theoretical framework of this paper.

Third, initial design of this research was to explore the impacts of issue cognition mechanism on the communication process between NGOs and MNCs by conducting comparative studies on the different responses from multiple MNCs to the NGO’s supervision on the supply chain. For this research idea, the detailed case analysis of this paper has achieved fruitful results, but it also leaves room for future research. Firstly, for the comparative studies, difficulty on information availability impedes us to further comparative studies at the current stage, due to the diversity in the corporate values on CSR and information transparency. Second, in view of the differences of support policies for NGOs in different regions, we will conduct more case studies in the future to enrich and deepen the theoretical framework of this research.
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CHAPTER 1. INTRODUCTIONS

1.1 Research Backgrounds

1.1.1 Corporate Social Responsibility and the Supply Chain of Multinational Corporations

Scholars on Corporate Social Responsibility (CSR) have endeavored to remold ethical business behaviors of the organization in harmony with society to establish a better society. While laissez-faire capitalism always hails the invisible hand as a panacea, CSR academics without over-obsession with the economic interests created by the business organization. The scholars in the field emphasize the capability of the business organization in promoting targets-reconciliation between business profitability and social progress, such as soundly arrangement of organization resources, initiative appreciation for social needs. Companies are profitable because they are responsible.1 (Ackerman et al.,1976)

Carroll’s (1991) interpretation for CSR outlines a relatively clear logical and ideological framework in the field. Commercial organizations must operate in a beneficial and compliance manner in the routine management operation, to maintain the legitimacy of occupation and utilization of limited productive resources.2 Furthermore, businesses inevitably need to assume both ethical and philanthropic responsibilities, which reflect the society’s implicit expectations of the company. Therefore, Carroll (1991,2015) interpreted the social responsibilities of business as a unified whole involving four components, economic, legal, ethical and philanthropic responsibilities, and stresses business should simultaneously fulfill all of them.3 Porter (2006) emphasized the strategic significance of CSR. He outlined the sociality of the business's value chain by advocating

business organizations to create Shared Value through socially responsible practices.⁴

Serving a variety of stakeholders well is considered to be an excellent corporate citizen due to a single indicator cannot assess what responsible corporate behavior.⁵ The notion of Corporate Citizenship compares business organizations to individuals in society and inspires numerous organizations who come to realize the importance of fulfilling their obligations and responsibilities. The concept has reached consensus in the mainstream commercial field in recent years. However, implementations of CSR have close connections with social context, which means CSR has the characteristics of regionalization and localization, rather than homogeneity.

Some of the Multinational Corporation (MNC) committed to their social responsibilities and pledged to spare no efforts to be a splendid global citizen in the global business operation. (Carroll,2015) Many corporations have scored remarkable achievements in the implementation of CSR by attaching importance to the demands of stakeholders.

The study of MNC’s CSR, which did not impede by the differences in either regional diversity or acceptance levels, gradually became mainstream in both academia and the real business world. There has been an intense debate in policy and academic fields about whether the business should place a high priority on CSR. However, over the past few years, some elites who devote their minds to this field have progressed into a new stage. From advanced countries to developing countries, professionals not just focus on the interior organizational ethics of MNCs, but also strive to unearth incentive factors that can inspire the MNC to safeguard harmony between business and society across their global supply chain.

Sustainable Development (SD) reached a substantial consensus among the nations in the worldwide, which urges people to inspect the reciprocal actions between business and society prudently. On the summit meeting of world leaders in 2010, the Sustainable Development Goals (SDGs) of the United Nations—Transforming Our World: the 2030 Agenda for Sustainable Development, gives sufficient consideration on balancing the economic, social and environmental interests and highlights the role of cross-regional and cross-sector collaboration in achieving the aim. The updated SDGs ranged from 17 topical subjects to 169 concrete targets in the framework of SDGs and was joint-announced by delegates from 193 member states.⁶

The concept of Sustainable Supply Chain Management (SSCM) conveys general standards and norms of business ethics that MNCs should consider in their global supply

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chain management (Seuring et al., 2008). The research dimensions of SSCM covers CSR-related issues of MNCs in the supply chain from the perspective of supply chain sustainability. SSCM supposes the gradual promotion of social responsibilities from the core company to suppliers is a prospective approach to advance social responsibility of MNCs. MNCs provably could wield purchasing power to impact the CSR practices of associated partners across the supply chain by such as procurement control, supplier management policies or code of conduct (Appolloni, 2014). CSR performances of suppliers unavoidably affect the core corporation not only on social evaluations but also the effectiveness of CSR policies, which results in some of MNCs urge to advance SSCM to gain more competitive advantages.

1.1.2 Non-Government Organization and Corporate Social Responsibility

Non-Government Organization (NGO), as external stakeholders, promotes the CSR-practices of MNCs with diversified efforts (Millar et al., 2004; Jamali, 2009) The NGO has always been a force that cannot be over underestimate in the progress of CSR (Arenas, 2009) Some of NGOs exerted tremendous external pressure on MNCs, especially when the organization in a radical way to expose companies who fail to deliver the promise of social responsibilities as well as to uncover unethical business practices that violate the interests of society. For instance, NGO’s advocacy once ignited intense social reactions as the milestone of the public awareness of a certain CSR-related issue (Carrol, 2015)

Scholars have noted that the variation of economic and cultural contexts brought some geographical features to CSR. Meanwhile, considering the conductive function in the supply chain, MNCs thus must keep certain equilibrium within their SSCM. The active involvement of NGO became an indispensable part in the progress of promoting CSR in the supply chain.

Some MNCs noted the contributions of the NGO in facilitating social recognition for their CSR practices. Under the premise of stakeholder engagement, the company set management objectives related to CSR issues. For example, some corporations invite

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NGOs to participate in the stakeholder dialogue.\textsuperscript{12} (Burchell, 2008) Corporation mitigated social risks under some constructive suggestions and constructed the partnership with NGOs.\textsuperscript{13} (Perez-Aleman, 2008)

On the contrast, many companies indeed overlook the role of NGO that are based in developing countries in their global supply chain, albeit they sometimes hesitantly admit the importance of collaboration. The supply chain of MNCs spreads across the globe, and vast supplier systems relate to a wide range of developing regions. Therefore, CSR management in the global supply chain involves a broader range of social concerns from different regions. Some NGOs engage in evaluating or supervising MNCs’ CSR performances in the supply chain. Especially many NGOs faced the economic and political constraints in developing regions where suppliers are located, but are still struggling to break through geographical restrictions and issue their opinions to MNCs.

NGOs serve as the information channel for local communities or minority group, expressing encouraged or critical voices to the business. While sometimes taking radical approaches to express their claims, NGOs represent potential social concerns on a certain CSR-issue. Sometimes, the initiative of NGO is an indication from the external environment that is foreboding the mentioned issue may attract mass public attention. Inappropriate responses might spark further social reactions. The ignorance of social expectations increases the occurrence possibilities of a crisis damaging corporate reputation, especially when a proposition has already caught the attention of a broader range of stakeholders and public concerns. Managers might face tricky issues like public criticism and consumer boycotts.

Meanwhile, some of NGOs argued that MNCs who pledged to social responsibility commitments should mitigate the side-effects to the local communities in the production process of the product in the supply chain. Particularly, defective regulations and inadequate supervisions in the developing country provides some space to violations that against the values of CSR.\textsuperscript{14} (Jiang, 2009) For example, indigenous NGOs that established in under-development areas questioned the business ethics of MNCs, owing to suppliers’ violations in the local area involving issues like labor right, environmental contamination, and natural resources preservation.

However, relatively mature as theoretical and methodological conditions are, MNCs’ attitudes to CSR-related issues in the supply chain are still diversified, especially when they are exposed to criticisms of NGOs that based in developing countries. A typical instance is for supplier’s misbehavior of hiring child labor, some corporations pay no heed

to the problems and let things drift, while others take it seriously and seek to mitigate the issue by cooperating with local NGOs. We should note the ethical gaps existing in both regions and industries.

Corporate crises of CSR originate from the neglect of social expectations on the initial stage of CSR-related issue.14(Koyama,2011) Historically, the improper reaction of MNC to NGOs sometimes given them an incentive to do more radical. When NGO’s investigations and criticisms sparked public attention, many managers have to confront more difficult issues and escalating social pressures.

1.2 Research Objectives

Corporate Social Responsibility (CSR) essentially reflects various expectations of society to business organizations. Moreover, social expectations will be expressed to business organizations in diverse manifestations. NGOs, as external stakeholders of business organizations, express social concerns for a specific phenomenon to the business community through initiatives, appeals or even criticisms. MNCs encounter diversified social expectations due to their business characteristics such as diversification of geographical location. Especially in terms of Sustainable Supply Chain Management (SSCM), the diversity of social, economic and environmental issues often makes the social responsibilities of MNCs prone to falling into social controversies and business criticisms.

The diversity of CSR policies in the supply chain of MNC reflects the individual characteristics of CSR management, which are bound to the unique such as corporate values and cultures, corporate governance, senior managers’ ethical standards, risk control capabilities, response strategies, and compliance operations. Meanwhile, social expectations involved in supply chain are complicated especially for MNCs whose suppliers located throughout the world. Public concerns of the Sustainable Supply chain often expose the MNC to criticism and controversy from NGOs.

Issue management theory regards an issue as a gap between social expectations and corporate actions. One of the objectives of the issue management is to facilitate proactive and appropriate responses of an organization to the social concerns that may raise social criticism or corporate scandals. Previous scholars have discussed the issue management theory from different theoretical levels. At the macro level, the issue management theory discussed the development process of individual issues, with emphases of interaction trajectory between the business community and society. At the individual level, the issue management theory explored how companies respond to multiple issues that associated

with diverse social expectations. But beyond that, some scholars noticed the research
discussion on the transformation process of an issue from the macro level to internal
management process of an individual company.16 (Wartick,1994., Deephouse et al.,2009.
Koyama, 2011)

Previous issue management theory suggests that an individual company may under-
respond to the diversification of issues related to social responsibilities due to lack of
understanding or cognition of social expectations. Ignoring social expectations increase
the likelihood of corporate scandals related to social responsibilities. Koyama (2011)
interpreted the phenomenon that inability of an individual company to in-depth identify
the social expectations as Issue Myopia. However, past issue management theory has not
fully discussed the mechanism of triggering the issue myopia or provided possible
solutions. For the reasons above, this paper will further explore causes for cognitive
limitation of individual business organizations on social expectations in the later chapters
and raises the research questions as:

- Why is there a gap between the MNCs’ actions and the society’s expectations in
  the Sustainable Supply Chain Management?
- How to explain the role of Non-Government Organizations in the Sustainable
  Supply Chain Management of Multinational Corporations?

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Figure 1. Conceptual Framework of the Research Objectives
(Source: From the Author)
1.3 Research Method and Content

Issue management theory studies the reactive process of business organization to social issues, aiming at promoting organizations to take proactive activities that bridge the gap between social expectations and corporate actions. From the theoretical context of issue management theory, we probed into the SSCM of MNCs under the supervision of NGOs. Theoretical analysis and case study are conducted with a combination of existing theories and practical cases in order to solve the research objectives proposed. Also, we supplement the deficiencies in previous theoretical studies of issue management theory. Initially, the theoretical review is carried out to probe into and review previous studies. Moreover, for verifying the potential existence of an issue cognition mechanism of an individual organization and exploring factors influencing this mechanism, a detailed case study was conducted.

Chapter 1 is the introduction of the study. Chapter 1 stated the background, the basis, the significance and the objectives for the research, and the methods mean we used in the research.

Chapter 2 is a theoretical review. Chapter 2 expounded the theoretical basis of the study and provided preconditions for further theoretical expansion. The first section briefly introduced the research and concepts related to CSR and SSCM. The second section sorted out the theory of sensemaking and enactment from the perspective of organizational cognition theory. The third section elaborated the issue management theory from different theoretical levels and pointed out the theoretical deficiencies in previous researches.

Chapter 3 is the theoretical conception and deduction. Chapter 3 proposed the theoretical deduction on the issue cognition cycle and put forward a model of issue cognition mechanism.

Chapter 4 is the case statement. Chapter 4 presented the interaction process between Apple and China’s environmental NGOs (represented by IPE) on environmental issues in SSCM of the IT industry according to issue life cycle theory.

Chapter 5 is the case analysis. Chapter 5 carried on two parts of analysis on the case. The first section is the discussion of cognitive changes of Apple’s Issue cognition, to verify the existence of an issue cognition mechanism of an individual organization. The second section is the discussion on the operational mode of the issue cognition mechanism.

Chapter 6 is the research conclusions. Chapter 6 summarized the research and conclusions. The research significance and future research directions of this paper were put forward.
Chapter 2. THEORETICAL REVIEW

2.1 CSR and the Supply Chain Management of MNC

2.1.1 CSR and the Sustainable Development

The discussion of business and social relations is often the starting point of the study on CSR. Here, we define business as to any private-owned organization that is engaged in making a product or providing a service for a profit, the scale of business organization covered Individual proprietorships, Medium, and Small sized corporations and Multinational Corporation. Society, in its broadest sense, refers to human beings and to the social structures they collectively create. In a more specific sense, the term is used to refer to segments of humankind such as members of a particular community, nation, or interest group.16 (Lawrence et al., 2008, Carroll, 2015)

How to accurately define the relationship between business and society is one of the significant aspects of the research on the concept of CSR. In 1953, Bowen proposed the concept of social responsibility in his seminal book, Social Responsibilities of the Businessman, and pioneered early researches in the field. He was named as “Father of Corporate Social Responsibility” by later prominent scholar Carroll. The debate about what contribution or responsibility corporations can make to society has not ceased since Bowen raised a question of what responsibilities to society may businessmen reasonably be expected to assume.17 MNC’s CSR has attracted global attention due to increasing integrations of the World economy. MNCs gradually accept the concept of Global Corporate Citizenship as an efficient approach to solve CSR-issues in the global arena. Through practices of Corporate Citizen, corporations fulfill their social responsibilities and perform their obligations to stakeholders.

Many academics attempted to draw a highly generalized definition by combing the existing conceptual framework of CSR. However, they found that ongoing emerged terms in different expressions were only superficially restated the meaning of the past with the old bottled new wine.18 For instance, Dahlsurd (2008) conducted a content analysis on

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37 kinds of CSR’s definitions that with some recognition degree in global practices over the past 30 years. He found fewer substantial confusions existed in how to defining CSR, despite that scholars had not yet reached an unbiasedly universal acceptance definition. The definitions although with difference emphases typically covered at least three parts of the five dimensions for depicting the impacts brought by the business, which are environmental, social, economic, stakeholder, and voluntariness. He concluded that managers faced CSR challenges more at the operational level than at definition level due to expectations emerging from more stakeholders and new social context impacted under the globalization.19

Applying system theory to business organizations is conducive to conceptualize the relationship between business and society. According to general systems theory, the organization like all biological organisms are open to and interact with their external environment.20 (Boulding, 1956) Same like other organizations, commercial organizations must adapt to the changes in the environment.21 While the ongoing discussion of organizational boundary continues, the theory explains the relationship among the business, the society in which it operates, and the natural environment in which the business and the society are both embedded, as shown in Figure 2.22

The interaction between business and society is an accelerating force for the development of CSR. The concept in the field of CSR typically contains the unique of analytical perspectives on this interaction process. In this paper, we divided some fundamental buzzwords in the field of CSR into three categories, according to the analytic perspective on the interrelations process among business, society and the natural environment.

Terms in the first category emphasize the constraints imposed by society on business. Social requirements serve as the imputes to drive the interaction of business and society. In the interaction process, society is actively to raise claims on business’s reaction. Such as the growing social concerns raised more social demands on business reactions. Society urges the business respond to its requirements. Otherwise, the social criticism would be imposed on the companies. From this viewpoint, addressing social requirements motivates companies to promote CSR. The root cause of increasing social concerns and requirements are derived from the public expectations on the corporate social value, reactions processes, and outcomes of corporate activities.

These terms reflect the restrictive constraints on business behaviors from the social context and emphasize incentive effects of social requirements on corporate behaviors. Carroll argued that the social context is equal to all of the macroenvironment faced by the business organization, which can be identified as four interconnected segments: social, economic, political, and technological. (Carroll, 2015) Changes in the society, such as the technological progress and economic expanding, raised the social expectations on the business. As a result, society is more concerned with the reactions on the social demands of commercial organizations. Chandler et al. (2014) summarized these stimuli as social affluence, sustainable development, globalization, and mass media diffusion, and brand awareness.23

One of the most representative is Carroll’s definition of CSR. Carroll defined Corporate Social Responsibility as “encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point in time.” Amid, economic and legal responsibilities are required by society, which indicates compelling obligations of business, while ethical and philanthropic responsibilities are expected and desired by society, which suggests the behaviors at business discretions. He clarified the content of social expectations within a multilevel model of pyramid of CSR. With emphasizing the role of “businesses’ responsibilities to the society of which it is part”, he noted that the business organization should fulfill all responsibilities simultaneously according to social expectations. “Economic Responsibilities + Legal Responsibilities + Ethical Responsibilities + Philanthropic Responsibilities = Total

Corporate Social Responsibility." (Carroll, 1999, 2015) Carroll did not give a practical measurement standard of CSR. However, he emphasized the obligation and accountability of business organizations, and pointed out the nature of CSR is the expectation of the society.

The terms in the second category emphasize the initiative of the business organizations. These definitions describe business's willingness to respond to society and emphasize the responsible behaviors of a company is the embodiment of the corporate willingness to take responsibility. Such as, Davis (1973) defined CSR as “the firm’s consideration of and response to issues beyond the narrow economic, technical and legal requirements of the firm which results in accomplishing social benefits along with the traditional economic gains which the firms seek.”24 Ackerman et al. (1976) argued responding reactions of business to social demands are much more material than they decide what to do. They proposed the notion of Corporate Social Responsiveness, which represents an action-oriented variant of CSR, and argued “the term ‘responsiveness’ as better reflecting the close relationship between social issues and economic activities.” Crane et al. (2007) defined business ethics as the study of business situation, activities, and decisions where issues of right and wrong are addressed.25

The terminologies in the third category not only note the process of interaction between business and society but also recognize that the interaction impact on the broad external circumstances, generally the natural environment. Such as, Frederick et al. (1992) defined CSR as a principle starting that corporations should be accountable for the effects of any of their actions on their community and environment.26 The definition of social responsibility from the International Organization for Standardization (ISO) 2006 (2010) is “the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior.”27

The concept of sustainable development is the most representative. When considering the relationship between business and social development, sustainable development initially focuses on resource considerations. The UN World Commission on Environment and Development (WCED) defined sustainable business as business that meets the needs of the present without compromising the ability of future generations to meet their own needs. Elkington (1998) proposed the concept of Triple Bottom Line (TBL), which interpreted the sustainability from three dimensions—economic, social and environmental. The economic dimension underlines the importance of value creation and refers to the firm’s creation of material wealth, including financial income and assets. The social bottom line highlights the respect for the individuals and the society formed by humanity,

including the quality of people’s lives and about equity between people, communities, and nations. The environmental bottom line, with focus on the natural resources, is mainly about the protection and conservation of the natural environment.  

Under some circumstances, sustainability and CSR are interchangeable concepts since they both describe the ethical norms that business imperatively adheres to from different perspectives. (Carroll, 2015) However, sustainability integrates and clarifies the required concerns the environmental impacts caused by the human activities, and emphasizes longer-term concern for people (society), planet (environment) and profits (business). Sustainability provides a reference standard for CSR behavior and has more practical significance in guiding CSR practices. Therefore, this paper adopts the concept of sustainable management to discuss the CSR-related issues in the supply chain.

2.1.2 Stakeholder Theory: Stakeholders of MNC

Freeman (1984) raised the stakeholder theory. The widely adopted definition of stakeholder is “any group or individual who can affect or is affected by the achievement of the organization’s objectives.” The stake includes not only economic interests but also other reasonable interest rights. Also, some scholars attach importance to the self-consciousness of the stakeholder, such as Clarkson (1995) defined the stakeholder “are persons or groups that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present, or future.” Some definitions emphasize the variety of each stakeholder’s interests in a business organization, such as Carroll. To sum up, stakeholders are individuals and social groups that the organization should consider their reasonable requirements.

The stakeholders of a business organization typically include stockholder, investor, employees, consumers, governments (legislators/regulators), suppliers, media, competitors and local community and other interest groups such as NGOs. It is necessary for an organization to identify its stakeholders because the stakeholder has the possibility of presenting claims on rights to the organizations. Freeman (1983) highlighted two principles that are applicable to identify the stakeholder, the corporate rights and corporate influences. The influence between stakeholders and the organization is two-

way. The stakeholder management theory is a corresponding management tool to stakeholder theory.

The study of stakeholder typology is conductive to stakeholder management. According to the structure of the organization, stakeholders can be divided into external stakeholders and internal stakeholders. According to whether participate in the transactions or obtain economic benefits directly from the organization, stakeholders are divided into primary stakeholders and secondary stakeholders. The secondary stakeholders’ impacts on the organization are indirect (Clarkson, 1995). Stakeholders were reckoned to have the power to exert influence on the organization’s strategy. With considering the stakeholder’s power (potentials for cooperation and threat) on the organizational strategic policies and diagnosing stakeholder’s potential willingness, Savage et al. (1991) divided the stakeholders into the supportive, marginal, nonsupportive, and mixed blessing. Regardless of the typology, an organization cannot ignore responsibility for identified stakeholders.

Some scholars combined the CSR management with the stakeholder theory. When analyzing the social issues faced by the company, Ackerman et al. (1976) argued that the operations of a company would have certain social influences with consequences, which determines the judgments of society on the company. Although the responsive process of the business to social demands is the internal operations, the society’s responses to the social consequences caused by the business are independent of the business will. After the business decides to accept a social issue, its ability of internal implementation, which was only partially motivated by senior executives, will affect the responsive outcomes of social issues. Therefore, the discussion of CSR requires to consider stakeholders. The company formulates the methods of stakeholder management after analyzing the issues concerned by stakeholders and the stakeholders’ influence.

Stakeholder identification is considered as a prerequisite for effective issue management. The social issues faced by the company in operations typically involve three categories: The first refers to social problems external to the company, which were not caused by any direct business activities, or if by direct business activities, reflected flaws of the larger society. The next category consists of the external impacts caused by regular economic activities of the company. The final category of issues occurs within the firm and is intrinsically tied up with regular economic activities. (Ackerman et al., 1976) Stakeholders or the public affected by these social issues potentially make reasonable requirements for the company, in some cases, these requirements of the public are the very objectives of issue management of a company.

Suppliers are important stakeholders for business organization, and MNCs have more complex supplier groups for their supply chain typically covers countries and regions

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across the globe. Stakeholder pressures faced by MNCs are global, and the diversified pressures are from such as economic imbalance across the operating regions, the cultural gap between host and home country.

The stakeholders of suppliers, for example, employee, the community that the supplier based, local government are also identified as the stakeholders of the MNCs, regardless of whether their indirect or direct relationship. As a result, with mixed requirements from the public in different social philosophies, MNCs are confronted with a complex stakeholder network across their supply chain, which require the systematic management of supplier's stakeholders.

2.1.3 CSR and MNCs' Supply Chain: Sustainable Supply Chain Management

Globalization and the development of outsourcing have promoted the social demands for MNCs to incorporate CSR into supply chain management. The sound ethical relationship between supplier and buyer inside the supply chain, as well as supplier’s CSR practices, impact public favor of the core corporation.\(^\text{33}\)\(^\text{(Roberts,2003, Hojemose et al.,2014)}\) The MNC as a core in the supply chain of which it is part plays a significant role in governing supplier’s CSR performance by its purchasing power. For maintaining the sound business ethics in the supply chain, MNCs are required to coordinate its CSR targets with upstream and downstream partners and to run the concept of sustainable development through every link in the supply chain systematically.\(^\text{34}\)\(^\text{(Carter,2008)}\) In May 2014, the Global Reporting Initiative (GRI) published the fourth version of GRI's Sustainability Reporting Guidelines (GRI-G4), which added the evaluation index for Supply Chain Management (SCM).

Some scholars discussed the CSR issues incorporated into the supply chain management in terms of Sustainable Supply Chain Management (SSCM). Although no unified definition has been formed, we can recognize that SSCM's definition typically emphasizes the connection with the Triple Bottom Line and refines the sustainability into the economic, social and environmental issues. Such as, one of the most prevalent descriptions is from Seuring (2008) who regards SSCM as “management of material, information and capital flows as well as cooperation among the companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e., economic, environmental and social into account, which are derived from customers


and the stakeholders' requirements” . Considering the long-term nature of sustainable objectives, Carter’s (2011) definition of supply chain sustainability underscores the significance of systematically integrating an SSCM with the strategy of a core company. The supporting facets or facilitators of SSCM also includes such as improving the supply chain transparency, proactive engagement of key stakeholders and systematical risk management. (Carter, 2011)

Numerous studies dug into how MNC succeed in sustainable practices in global supply chains. (Pagell et al., 2009) Practical activities of MNC in the scope of SSCM often include requiring key partners in the supply chain to adhere to certain ethical standards in their workshop or facilities or at least making compliance commitments, for example, the implementation of supplier codes of conduct. (Andersen, 2009) The degree of constraint on supplier depends on the voluntariness and discretion of MNC due to lack of consolidated standards applicable to all industries. To a certain extent, MNC’s criteria on supplier codes of conduct are a voluntary combination of guidelines from industry associations or international norms and standards. The reference includes such as some compulsory international standards authentications, UN Global Compact, Green Logistics, International Labor Organization (ILO) Declaration, Ethical Trading Initiative (ETI) Base Code, Social Accountability 8000 International Standard (SA8000), and Workplace Code of Conduct of the Fair Labor Association (FLA). (Wittstruck, 2012)

However, many factors fostered controversies on substantial effectiveness of SSCM practices that are self–determined by MNCs since standards are not mandatory for MNCs. For example, some requirements for safety improvement in the workshop are obviously beyond the economic capacity of the supplier, whereas the core company without providing reasonable supportive measures. The company implements some moral principles that are disharmonious to the local cultural and ethical characteristics of the supplier. One of the most severe accusations against MNC is that MNCs are only Greenwashing by claiming to compliance with certain standards in the Supply Chain and transferring the CSR pressure to the supplier. (Lewis, 2016) Jia et al. (2018) reviewed literatures on practices of SSCM in developing countries in the year from 2000 to 2016. These studies respectively discussed the driving factors, barriers, mechanisms, and outcomes of applying SSCM in developing countries. The supplier in developing countries normally faces pressures from multiple levels on adopting the idea of SSCM.

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For example, normative pressures were imposed by the buyer like MNC who adopting procurement power to force suppliers’ compliance with international standards. The regulative pressures from the importing countries mainly refer to mandatory regulations of developed countries. (Jia et al., 2018)

SSCM interwinds with local communities, while the production and manufacturing links in the global supply chain of MNCs are usually located in developing countries. Scholars of SSCM sometime discussed the sustainability of the supply chain within the dimension of a single issue. (Yawar et al., 2017) Due to the global impact of the environment, environmental issues in the global supply chain of MNC have been widely concerned. Whatever any issue, external stakeholder pressure is considered to be the most important force affecting the practice of sustainable supply chain. However, MNCs often neglected requirements of local communities in the region of suppliers.

2.2 Organization Cognition Theory: Enactment Theory

2.2.1 Organization Cognition and Sensemaking

As a branch of cognition theory, constructivism is cognition process-oriented analyzing the cognitive modes of humans or organizations. Constructivism describes the changes in the external environment, subjective cognition of human, and activities as a continuous process, and believes that the cognitive structure affects organizational and human cognition. (Simon, 1947) The cognition theory of constructivism holds that humans’ cognitive ability is a part of the natural system and cannot be changed. However, as an artificial system, organization’s cognitive ability is reckoned to be changeable.

Piaget (1926) studied the cognitive developmental process of children and put forward the cognitive development theory. He divided the cognitive development of children into four stages and argued that children gradually construct the knowledge about the external environment through the interaction process with the surrounding environment,

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which promotes the development of their cognitive structure. Necessary interventions at the cognitive development stage are critical to improving children's cognitive and learning abilities.  

(Ronen et al., 1997)

In the field of information science, Dervin (1976) was inspired by this ideology and studied the driving force of human's cognition. He studied people’s reaction process after receiving information and believed the "information-seeking" is the driving force of human’s cognition of the external environment."(Dervin et al., 1976) Sense is the outcome of the interaction between individual cognition and the environment. Therefore, this information seeking that drives human cognition is described as Sensemaking, which individuals try to make sense about the new occurrences in the specific situation. From the perspective of sensemaking, individuals selectively pay attention and participate in the interaction with the external environment in a specific situation.  

(Weick, 1979) People's actions are based on their cognition of specific situation through the sensemaking.  

(Ocasio, 1997)

Sensemaking depicts the interaction process between the individual and the external environment, during which the individual can construct their cognitive system. Ring et al. (1989) defined sensemaking as “a process by which individuals develop cognitive maps of their environment”  

Some scholars viewed sensemaking of individuals as a thinking process that was stimulated by the unknown in the circumstances. People use sensemaking to construct the cognition and interpret the surprises that beyond existing cognition.  

(Louis, 1980, Weick, 1995)

Weick (1979) applied the sensemaking to organizational studies from the perspective of social psychology. Organizing is described as a social process in which people jointly process the equivocality of information originated in a specific situation. Through organizing, people assemble an array of ongoing cyclical and interlocked activities to form a grammar that intelligible to actors in the social processes. This grammar represents a universal grammar of social processing, usually referring to rules and conventions. In this theoretical context, the organizational cognition is constructed through the continuously retrospective sensemaking of the equivocal information in the

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44 Weick, K.E. (1979). The social psychology of organizing, (2ed). Addison-Wesley, Reading, MA.


external circumstances. (Weick, 1979)

The cognitive process of organizational participants as operating in an evolutionary fashion involving trial and error, change, superstitious learning, and retrospective sensemaking. 49 (Scott, 2007) Therefore, organizational cognition is influenced by organizational sensemaking, which is a process of interpreting the uncertain information flow in the environment. The cognitive process of the organization begins with the enactment of social reality, which is based on the uncertain information that an organization can perceive in the external environment. (Weick, 1979) The purpose of organizing activities is to raise certainty of information to a manageable level.

The premise of organizational cognition is based on an organizational perception of the external environment. Due to the limitation of perception and the sensible environment, the environment perceived by the organization is limited to a revised environment. (Simon, 1947, Weick, 1995) Therefore, the social reality in organizational cognition is not objective social reality. This phenomenon leads to the organization’s cognitive bias to the external environment, meanwhile, promotes the organization to continuously seeking new information to complete its cognition on reality. The purpose of organizing is to raise the certainty of information to a manageable level.

Organizational cognition is a continuous process, and the cognitive mechanism determines the organizational behavior choices. An organization has formed a reasonable explanation of its behavior through retrospective sensemaking and rationalizes its expected behavior. However, this process does not necessarily lead to positive evolutionary of the organization. Therefore, the organizational cognitive mechanism does not necessarily improve organizational behavior. The basic evolutionary process assumed by sensemaking is one in which retrospective interpretations are built during interdependent interaction. 50

In general, an organization forms a common cognition of the external environment or events through its continuous sensemaking. This cognition process consists of three general steps: first, the collection and acquisition of external information by the subject, second, the formation of information interpretation, and third the formation of guidance on behavior.


2.2.2 Model of Organizational Enactment Theory

Wieck’s organization enactment theory integrated the continuous sensemaking process of the organization into an enactment model. The information acquisition is organization’s perception of the outside environment. Enactment is a window through which organizational cognition communicates with the external environment, and also the beginning of the internal process through which the organization processes the perceived information. (Weick, 1979)

Communication is an information source for the enactment, reflecting the organizational perception of the external environment. (Ocasio, 1997, Weick, 2005) Whether at individual or organizational level, communication is the process of the subject’s interaction with the external environment to perceive new information. Communication is a precondition for organizational perception of the outside world. In the communication process, the new information flow enables people to form the cognition of others and events. Communication is a critical to organizational sensemaking and “is an ongoing process of sense of the circumstance in which people collectively and find ourselves and of the events that affect them” .51 (Taylor et al., 2000)

Weick proposed the enactment model of organization including the following links:

![Diagram of the relationship among enactment, organizing, and sensemaking]

Figure. 3 The relationship Among Enactment, Organizing, and Sensemaking
(Source: Weick, 1979, 2005)

- Ecological Change: ecological changes affect the organizational perception of the equivocality of the environment in which the organization is situated.

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Ecological changes provide a perceivable environment and are the raw material of sensemaking. Only changes in the environment can attract attention and stimulates the sensemaking process.

- Enactment: the process by which individuals interact with the environment. It is also the only process that organisms are involved in the environment. The significance of enactment is to provide equivocal materials for the later process. Sensemaking enacts on the sensible or perceived environment.

- Selection: the selection process results in the individuals forming interpretations or cognitive schemas of the environment and may guide subsequent decisions.

- Retention: save the experience and solutions retained during the previous selection process.

- Feedback Process: describe how individual behavior motivates environmental change or describe how retention affects enactment and selection.

It is noteworthy that this enactment process model is suitable for analyzing the impacts of a continuous communication process on organizational cognition.

The theory of sensemaking was also introduced into the study of organizational crisis and organizational change. Scholars identified the organizational sensemaking conditionally collapses when the sudden crisis happened, due to organizational members are prone to serious problems in traceability, awareness, reliability, and certainty when facing crisis events.56 (Weick, 1988)

Some scholars applied the enactment theories to diagnose the interrelationship between social attention and organizational behavior. Such as, on the industry level, Hoffman et al. (2001) argued the media coverage of critical events as the external stimuli to the enactment of a certain industry, and sustained levels of public attention require contestation between insiders and outsiders of the industry over the enactment of the critical event.57 Therefore, organization’s selective attention and situated cognition on the external environment are the premises of the related research.

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2.2.3 Sensemaking and CSR

Sensemaking emphasizes the subjective consciousness and initiative in the cognitive process without ignoring the role of external environmental stimuli. Inspired by the sensemaking, scholars pay attention to the dynamic process of CSR-cognitive construction that is implicit in the interaction between business and society. Some studies connected the organizational sensemaking with CSR. For example, Nijhof et al. (2006) defined the CSR as an “interactive social process in which CSR is systematically organized by creating and recreating an internally and externally shared frame of relation to CSR objectives, activities and results”.  

From the view of sensemaking, initial-CSR behaviors of an organization only represent its established state. With the changes in the social environment, the CSR-cognitive system of an organization is accompanied by the continuous sensemaking.(Wang,2009)

Basu et al. (2008) viewed CSR is constructed by organizational sensemaking and is outcomes of organizational cognition. They described a model that identifies CSR characteristics from three dimensions of the sensemaking process, including what firms think, what firms say, and how firms tend to behave. The model suggested that CSR characteristics of an organization would relate with the interaction between the organization and the outside. However, the model did not indicate the impact of CSR practices of a certain character on the external environment, and how the interaction with circumstance gradually affects changes in the CSR-cognitive mechanism. They did not discuss how to intervene in the evolution of this CSR cognitive mechanism, so there is backwardness in applying the model to improve the CSR practices of individual business.

Richter et al. (2016) applied the model to case studies and analyzed the CSR characteristics of British American Tobacco (BAT-Switzerland). The study found that CSR character of a company is not static, but dynamic and changing. In addition, when the business faced with greater external pressure, it will continuously carry out the sensemaking of CSR and change the CSR approach in the changing circumstance. Therefore, identifying the cognitive process of CSR in corporate decision-making is of fundamental value for improving CSR approaches. However, this study did not describe the mechanism of this cognitive change and the factors that influence it.

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In summary, sensemaking and enactment theory is the meta-theories to study the organizational process. (Scott, 2007) In this theoretical category, the interaction between an organization and the environment affects the organization’s cognition. From the cognitive perspective to understand CSR and incorporating enactment theory into the interaction process between business organizations and society, analyzing on business organization’s CSR cognition is process-oriented and no longer static or mechanical.

Sensemaking is the driving force to promote the organizational cognition. Weick’s enactment theory formulates the process of organizational sensemaking. Existing studies have pointed out that an organization’s CSR-cognition is formed in the process of continually perceiving the environment and coordinating its relations with external stakeholders. The enactment theory reflects the influence of the interaction between environment and organization of the formation of organizational sense or cognition, which illuminates not only the role of environment but also the perception ability of organization. Therefore, the enactment theory is instrumental in studying the impacts of interaction between business organizations and society on the organizational cognition.

Communication is an information channel for the organization to perceive the external environment and provides the information flow for the enactment. The information flow that can be identified and bracketed by the organizational communication process is affected by the feedback from previous selection and retention of the organization. Therefore, the importance of communication to organizational cognition has been highlighted in the enactment theory.

However, the role of communication in the process of organizational cognition has not been adequately discussed in the CSR field. Few studies dealt with how the organizational CSR-cognitive changes with the continuous sensemaking process, or how it affects the CSR practices during the communication process with the external. Therefore, in the process of interaction between the organization and the external environment (such as stakeholders), the organizational cognitive changes and related mechanism in CSR-cognition remain to be further explored.

### 2.3 Issue Management Theory

The existing issue management theory is typically divided into two levels. On the macro level, studies mainly focused on exploring the expanding trajectory of an issue in

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the broader social context, such as the life cycle of public social issues. On the enterprise level, scholars concentrate on the managerial approach of individual enterprises’ responding process to social issues. Wood argued the first level is externally oriented issue management, which focuses on the issue, the second level is internally oriented issue management process focuses on issues-oriented responses process within the firm. (Wood, 1991, Koyama, 2011)

### 2.3.1 Definitions of Issue and Issue Management

In the 1970s, changes of American's social environment weakened the influences of the business organizations on public policy, especially the rise of public awareness of social responsibility. Some scholars argue that traditional terms such as public affairs or public relations are insufficient to express the complexities of commercial organizations' response processes on social problems. Therefore, the concept of issue management was raised. (Heath, 2008)

Chase coined the concept of “Issue Management” in 1976. In his views, there is a group of professionals within the organization, who are capable of making predictive judgments on the development of social issues. Conducting issue management contributes to refrain the company from economic penalties in the field of public relations and relieves the external pressures on the organization.

Lawrence et al. (2014) argued that an issue is a kind of widespread public controversy. The issue is widely concerned by the public and often influences public policy or legislation. Mature issues require high attention from the company—the emerging issues both a risk and an opportunity. Companies are able to gain a competitive advantage by correctly anticipating the trend of the issue. For example, Toyota's early developing of gas-electric engines, which indicates that correctly anticipation of the company on the public increasing concerns of environment protection. (Lawrence et al., 2014)

Fahey (1986) and Carroll (2015) argued that focusing on the field of public affairs and public policy management is a narrow way to discuss issue management theory. Meanwhile, integrating the issue management into the corporate strategic management process is a broadly inclusive perspective. (Fahey, 1986, Carroll, 2015)

Some scholars regarded the social issue as the objective of the organization strategy management and suggested that in the process of issue management, enterprises can

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apply strategic management methods like SWOT analysis on issues. ¹³ (Ansoff,1980, Heath,2008) Heath (2008) viewed the process of strategic management for public issues as “the management of organizational and community resources through the public policy process to advance organizational interests and rights by striking a mutual balance with those of stakeholders” ¹³.

In the context of corporate issue management, issues are controversial inconsistencies caused by gaps between the expectations of corporations and those of their public. These gaps lead to a contestable point of difference, the solution of which can have significant consequences for an organization. ¹⁷ (Heath,1997, Wartick et al.,1994)

Although there are controversies over the breadth of issues faced by business organizations, we believe that the definition from Crane, the founder of the Issue Management Council, reflects the characteristics of CSR issues directly and substantively. An issue is a gap between an organization’s actions and stakeholder’s expectations. Moreover, issue management is the process used to close that gap. ¹² (Weiss,2014, Carroll,2015)

2.3.2 Developing Trajectory of the Social Issue: Issue life Cycle Theory

On the macro level, traditional issue management stressed the identification of the lifetime of a single issue, while in the level of individual companies, issue management always covered a plurality of public issues. ¹⁶ (Downs,1972) For example, it always integrated with stakeholder theory in the management cycle to identify the social concerns faced by the company.

From the perspective of the corporate social responsiveness, Ackerman et al. (1976) argued the evolution of social issues follows a predictable course, which resembles the product lifecycle and changes with public awareness. They name the expanding course of social issues as the social issue life cycle. A social issue takes decades typically to cease to be a matter of active public concern. They believed that the decision-making of the organization on social issues is mainly determined by the discretion of the executives, which determines the research on the issue-awareness of business organizations should first focus on senior managers. Many of subsequent studies made corresponding

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conceptual schemas for this process.

![Diagram of the Social Issue Life Cycle](image)

**Figure 4. The Social Issue Life Cycle**
(Source: Ackerman et al., 1976)

Many scholars initially considered legislation as the end point of the development of social issues. As the public acceptability on a social issue increasing, the legal enforceability on the violations is also improved. (Ackerman et al., 1976) They discussed the relationship between the expansion of social issues and political legislation and modified the issue life cycle model. Such as, Post (1978) divided the social issue life cycle into four stages. On the first stage, the public or concerned groups aware that there is a problem with an organization’s behaviors and expect the organization improves; on the second stage, the expectation become politicized due to some political interest involved. In the following two stages, the issue terminated and turned into a legislative objective regulated by the government. In the final stage of the issue life cycle, the establishment of laws and norms reflects a consensus on a specific social issue.

Under America’s political context, social issues were initially used by interest groups as a tool to attract political support. Therefore, Max (1986) detailed the steps to politicize the social issue from inception to resolution and proposed the Seven-Phase Issue-Development Process to identify and follow public issues that do not necessarily originate within corporations. He argued the stepwise political engagement that from the regional to the federal proved the political awareness was on an upward process, which was

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analogous to the expansion of public awareness.\textsuperscript{65} He divided the issue development process into seven phases in more details.

- Stage 1: a felt need arises in the society, which from emerging events or advocacy groups’ move.
- Stage 2: media coverage is involved in, and media exposure continues to increase.
- Stage 3: interest group enjoys a strong momentum and become a strength.
- Stage 4: major local political jurisdictions pass issue-related policies.
- Stage 5: the federal government is concerned about the issue.
- Stage 6: the issue progresses into extensive litigation and regulation procedures.
- Stage 7: lawsuit becomes the primary way to settle the issue.

![Figure 5. Seven-Phase Issue-Development Process (Source: Max,1986)](image)

Max (1986) argued that the organization is capable of aware the social issue, but they decide to take no actions at the initial stage. The awareness of business organizations began when this issue was introduced into the legislative stage. However, these studies did not surround the issue-awareness trajectory of the business organizations although they mentioned the business’s reactions in some stage.

More studies have made business organizations realize that they are not merely passive compliance in the process of reaching solutions. The business is able to gain unique competitive advantages with a proactive approach by predicting the trend of the social issue. (Arrington et al., 1984) Therefore, a number of organizations established a dedicated department of issue management. Some scholars pointed out that both the issue’s maturity and relevance with the core business impact on corporate response measures, and some probed into how the cross-cultural context impacts progressive agenda of a public issue. (Pasquero, 1989)

Moreover, some studies suggested that the formulation of regulations and norms is not the only endpoint of an issue. Not all issues complete the route, and some are resolved before the legislative stage. Business organizations are capable of ceasing the issue from reaching legislative stages by reaching a consensus with stakeholders other than political organizations. Some noted that the social issue life cycle oversimplified the enlargement stages of the issue. In practice, the expansion of some issue deviates from the linear or circular course. Many vague factors impact the process of issue evolution, such as fact variations, stakeholder engagement, more issues intervention or the expectation of issue scope. Issues potentially have multiple evolution paths and may progress recursively or cycling back. Occasionally, an issue skips some stages into reaching social consensus. (Bigelow et al., 1993, Lamertz et al., 2003, Carroll, 2015)

On the discussion of issue cognition, Bigelow (1993) argued that cognitive activities are in the initial stages of the issue development. (Bigelow et al., 1993) At the initial stage, an issue as diffuse fact presents to the organization and stakeholder, and issue’s influences yet not to be fully understood and recognized. Therefore, individual stakeholders should first identify and interpret the issue. Bigelow argued the first two stages were similar to the necessary steps of organizational interpretation that before organizational learning. With interpretation, participants frame the issue by understanding the information reflected uncertainties in the external environment through inferences and hypotheses about issue source and possible implications. (Daft et al., 1984) The following stages of an issue resolution do not necessarily involve the political arena, and stakeholders may resolve the issue in other ways.

Garrett et al. (1989, 1995) studied how manager use issue management to respond to accusations of unethical behavior. They proposed a corporate communicative response

model to explain the effectiveness of communicative response to accusations, highlighting the effectiveness of concession as a response option.  

Koyama (2011) viewed the issue life cycle is a process in which the society and business organizations gradually reach consensus on the corresponding solutions of a controversial issue. According to the fluctuation of the degree of social concerns, Koyama divided the issue life cycle into emergence, expansion and maturity periods. The end stage of the issue life cycle is to reach a consensus between the business organization and the society (like stakeholders), regardless of the form in which such consensus or agreement is sustained. Consensus forming indicates that business organizations and society agree on how to deal with the issue at the time point. The controversy of both sides disappeared on whether to deal with the issue and how to deal with the issue.

Koyama (2011) proposed that an issue enters into a maturity period as the social concerns on the issue reaching a peak. Most companies within the business community form a cognition on the issue at the stage and take corresponding countermeasures. After that social concerns for the issue decline. The issue disappears after business and society agree on the solutions. Therefore, relationship between social concerns and the issue life cycle was portrayed in the figure.

- **Emergence stage:** a period of social concerns for the issue is relatively low. Typically, only a part of the stakeholders points out the issue at this stage, such as the NPO(NGO) or the residents of a particular region.

- **Expansion stage:** it is a period with an upsurge in social concerns of the issue. At this period, other stakeholders take concrete reactions for the issue, such as endorsement, opposition, or coordination. As a result, the issue is recognized in a broader social context. The mainstream media plays a significant role in other stakeholders’ recognition of the issue.

- **Maturity stage:** social concerns gradually decline after the peak. Many companies recognize the existence of issue, and some take countermeasures. Besides, the government institutionalizes the solutions to the issue through laws or regulations.

- **Consensus forming:** it is the end stage of the issue life cycle. Business and society reach a consensus or agreement in due course on how to deal with the issue. At this point, the issue is no longer an issue.

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From the above analysis, we note the issue life cycle depicted the spreading trajectory of an issue, involving the following connotations. First, both society and business go through a nurturing period on issue cognition. Business organization’s perception is typically later than social awareness and requirements. Second, new judgment criteria are formed in the variation of the issue life cycle, according to cognitive accumulations of business and society on how to deal with the issue correctly. Thirdly, if the business does not respond to an issue in the early stages of its life cycle, the potential expansion of an issue would bring more disputes. Therefore, the business organization should have a clear understanding of the social context in which the organization based to diagnose the nature of the available approaches in dealing with the issue.

2.3.3 Social Issue Management Cycle

As mentioned earlier, the discussion of the issue management on the macro level is externally oriented which focuses on a particular issue. The issue management on the managerial level is internally oriented, which focuses on issue-oriented responses process within the firm. The issue management within the business organization involves an integrating process, such as incorporating with the corporate culture and strategy or adjusting structure of corporate governance. (Wood,1991, Koyama,2011).

Chase (1977) created the original management model of issue management. Chase’s model consists of five primary steps, which include issues identification, issues analysis, change (strategy) options, and action program. (Heath,2008) The primary purpose is tantamount to mitigate the adverse effects of public issues through proactive efforts. However, it does not offer the possibilities of competitive strength that individual companies could gain in responding to the public issues. Some other studies derived
from Chase, adopting its core conceptual logic the and extending it.  

1. The Issue Management Cycle from Lawrence and Weber

In Lawrence and Weber’s views, well-functioning issue management within the organization forms a repeated loop, but with the premise of establishing a healthy dialogue with stakeholders. New information in the dialogue is continuously inputting into the process of issue management, which drives the repetition of the cycle. In the combustion of enough creativities from savvy managers, the organization is available with more options and solutions to respond to the issue. Through the issue management cycle, the organization finally improves the programmatic responses to the issue. The cycle described how to actively organize a responsive process for emerging stakeholder concerns as they arise. They illustrated the issue management cycle in five stages.

STAGE 1. Issues identification

This is a process of information acquisition and identification. An organization need to identify the social issue in the initial stage, involving but not limiting to emerging public concerns that are potential to impact the organization, no matter positively or negatively. It requires reasonable anticipations of senior executives on the tendency of the issues of concern to the public. For example, the channel of information acquisition covers the ongoing conversation with key stakeholders and data-searching techniques collecting public opinions in mass media.

STAGE 2. Issues analyses

The organization needs to analyze contents and implications of the issue and how the issue affects the organization. In the stage, managers have an overview of the issue. It is necessary to find out the factors that determine the issue’s progress and clarify its evolving process. The analyzing process rests on the internal indicators of each organization, and the emphases are diversified.

STAGE 3. Options generation

In this stage, the organization decides how to respond to the issue after a complex decision-making process of the issue manager. Ethical considerations of senior executives, potential effects on the organization’s reputation and other same like factors affects the selection process of a responsive scheme. A proper solution is usually bound to the manger’s creative thinking of all possible options and must withstand the test of the practice.

STAGE 4. Take action and implementation

The organization executes an array of actions after selected the responsive plan. Final outcomes and performance depend on the implementation capability and management mechanism of the organization.

STAGE 5. Results evaluation and continuous improvement

The organization evaluates performances according to outcomes of implementation, and make adjustments to the reaction plan where necessary.

Figure 7. Issue Management Cycle (Source: Lawrence et al., 2014)

2. Organization Strategic-level Social Issue Management Cycle from Heath

Some scholars highlighted that positive functions of the issue management within the firm are far more than facilitating its communication with external audiences in public affairs. Communication is the heart of the issue management. However, the issue management in-able to achieve effectiveness if it is not integrated with the strategic business planning. Effective issue management enhances the organizations’ sensitivities to the public policies that potentially affect its operations, but also assists it in seeking for market advantages and mitigating the threats.⁷⁴ (Ansoff,1990) Renfro (1993) viewed successful issue management systems are built to run on the strategic management

cycle.” (Renfrø, 2013)

On the basis, Heath (2008) believed that issue management is suitable for the organization to manage issues that impacted by the public policy, and issue management cycle should be integrated with the strategic management process of an organization to achieve its effectiveness. Organizations face scores of challenges from public policy and public’s expectations. Issue management facilitates reconciliation of organization performance and public expectation, and enables an organization to achieve its strategic adaptation to macro-social issues (usually public policies) within established values and existing resources.

Heath (2008) incorporated identifiable social issues into the organization’s strategic planning related to public policies, due to the limited resources make it is impossible for an organization to identify all potential social issues. Meanwhile, there are some difficulties in deciphering the social issues that affect the organization.

Therefore, the process of strategic issue management (in the field of public policy) includes four kinds of interlocked activities which include strategic business planning, strategic issue monitoring, strategic corporate responsibility adjustment, and strategic communication planning and execution.

Issues scanning is prior to issues identification. Heath emphasized “... (these steps) call for sustained efforts to use benchmark data as starting points to extrapolate formation and change of opinions by key public.” (Heath, 2008) It required sustained efforts of managers to constantly search for the emerging social issues that possibly become salient and the public opinions that potentially impact on the organizational strategy. The focus here is on the attitudes of the mainstream public to this issue, for example, one indicator is the number of people of concerns.

This model integrates the process of strategic planning and the issue management cycle, and the original issue management cycle is part of strategic business planning. The organization processes multiple social issues in a sequence that start with issues scanning and determines priorities of the social issues faced through analyzing after issue monitoring or issue identifying. All these stages are prerequisites for an organization to make strategic business plans. An issue is placed into the company issues monitoring system only after it meets some criteria. In the stage of issue monitor, the organization keeps watching on the social issues that are not prominent in issue scanning. Other issues step into the phase of issue identification with further process.

In summary, issues identification here involves determining whether an issue concern that could affect organizational ability to achieve its strategic business plan. However, the organization in the stage is usually at risk. First of all, the complexity of environmental

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change brings too much information load, which generally exceeds analytical capabilities of an organization, thus resulting in enormous uncertainties. Secondly, the complexity of the issue identification process is a big test not only for the professionalism of managers but for the organization available resources.

**Figure 8. Issue Alert and Response Process**
(Source: Hearth, 2008)

After analyzing the issues, the organization set the priorities of multiple issues of CSR. The priority involves the allocation of organizational resources in responding to CSR issues. Responsive procedures are characterized here by threats or opportunities involved in the issue. All of these decision-making processes are influenced by changes in strategic business plans, standards and implementation of CSR, public policy plans, and communication plans.
2.3.4 Issue Myopia Theory

The issue life cycle proposed a general development process of an issue, and the issue management cycle guided the companies to deal with multiple issues in practice. Koyama (2011) viewed that there is an implicit hypothesis in traditional issue management theories that it is effortless for individual companies to recognize the social issues that need to be addressed. However, individual companies have cognitive difficulties in identifying social issues in practice. Therefore, it is necessary to probe into the cognitive ability of individual companies to social issues.

Koyama argued that the previous issue management theory has a theoretical fault in discussing the issue cognition. First, the issue life cycle discusses the development process of social issues at the macro level, and mainly describes the progress of a single social issue. At the level of macro issue management theory, the scope of study is the interaction of all business organizations and the society in issue response. At this level, research typically starts with the gap between social expectations and corporate actions, and pre-assume that if business organizations who identify issues at the early stages of the life cycle can gain a corresponding advantage.76(Palese et al., 2002) In this theoretical context, individual companies will sooner or later achieve consistency in corporate actions and social expectations. However, the theoretical level of issue management cycle is individual companies. In other words, the scope of research is individual companies and society. At this level, issue management theory is considered to be a management process by which individual companies deal with multiple social issues. The issue was viewed as an item, or an objective of issue management cycle, that individual companies should tackle.

Therefore, due to lack of discussion on the issue cognition stage of individual companies, cognitive difficulties of individual companies in identifying social issues that need to addressed are ignored. Cognitive partitions wall occurs between the theory of issues life cycle and issue management cycle. Koyama described it as a Wall of Cognition. Individual companies are incapable of responding to social expectation properly as impeding by such cognitive barriers. (Figure 9)

By analyzing the mechanism of cognitive difficulties of individual companies, Koyama (2011) proposed that some factors lead companies are prone to make unreasonable responses to issues. Improper reactions are typically against their values of CSR. The same can be said of ethically strong companies. The factors are such as low relevance between issues, the corporate governance structure, and influences of managers’ experience.

Koyama put forward the theory of issue myopia to explain the phenomenon. The

The proposal of the issue myopia theory is inspired by the marketing myopia theory of Levitt (1960) who provided the notion of marketing myopia in analyzing the causes of stagnation and decline in the growth industry. The failure stems from the manager’s myopia: top executives ignore the variation of the external market in the marketing process (fateful purposes), narrowly define marketing objectives (error of analysis), and misjudge market opportunities. In the period of rapid growth, organizations should be customer-oriented and value satisfaction to seek market opportunities.

![Issue Life Cycle and Issue Management Cycle](image)

**Figure 9. The Relationship Between Issue Life Cycle and Issue Management Cycle**
(Source: Koyama, 2011)

Issue myopia is a phenomenon that an organization narrowly acquaints itself with a specific social issue. Companies caught up in issue myopia only respond to social issues that they have awareness. Meanwhile, other social issues went unheeded. Neglecting the diversified expectations of stakeholders reflect in the incompleteness of the response measures in the corporate management of social issues, which leads to the failure of companies to cope with social problems. The failure of social responsibility management has finally turned social issues into corporate crises. (Koyama, 2011)

Besides, the role of stakeholders in the issue adopting process from the macro level to corporate level was stressed in previous researches. Deephouse (2009) argued the

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external stakeholders of a firm served as infomediation channels on the process that social issues transform into corporate issues, and the information exchange process impacted the organizational responsiveness to social issues with parties involved. However, apart from the mass media, the substantial effects of other stakeholders did not earn significant attention in the related research.

In summary, previous issue management theory mixed the cognition on social expectations of the whole business community with the cognition on issues that individual companies need to take into consideration. The issues myopia theory proposed that the natural limitation of organizational cognitive abilities negatively impact the CSR practices. However, scholars have not yet fully discussed the issue cognitive mechanism of individual companies especially the possible impacts from external stakeholders.
Chapter 3. THE MODEL OF ISSUE COGNITION CYCLE

3.1 Theoretical Analysis Framework

3.1.1 Signicances of Issue Management for Sustainable Supply Chain Management of MNCs

Initiatives of NGOs reflect the public’s expectation of corporate activities in dealing with social concerns. Social expectations are escalating under the influences like affluence, social awareness, and average education levels, meanwhile, the public consider that commercial organizations are capable of and have the obligations to meet their expectations.

The ever-rising social expectations typically outpace the responsiveness of institutions like the business. A gap unavoidably raised between expectations of society and actual performances of the organization, which lead to social disputes over organizations. Jacoby (1973) viewed the gap as a social problem.\(^\text{78}\) Therefore, business organizations fell into the CSR predicament and have to face business criticisms as is shown in Figure 10.

Carroll regarded social criticisms of business organizations as a driving force to promote the progress of CSR. Other factors include the increased concerns for the social environment and a changed social contract. Accordingly, Carroll defined CSR as “encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point of time”. (Carroll,2015)

Therefore, understanding social diversity expectations are of essences for the responsible business organization. However, social expectations are influenced by the stage of social development and social realities. For a business organization, decent

countermeasures to social issues require proper channels to acquire social expectations in different social contexts.

![Social Problem Diagram](image)

**Figure 10. Society's Expectations versus Business's Actual Social Performance**
(Source: Carroll, 2015)

The social expectations involved in supply chain are complicated especially for MNCs whose suppliers located throughout the world. To realize CSR through the construction of a sustainable supply chain, MNCs need to understand the social expectation under different backgrounds. The inappropriate responses of MNC to social expectations increase the possibility of crisis. Therefore, the significances of the issue management theory for the SSCM are embodied in the following aspects:

Firstly, the issue management theory is oriented by social expectations. Issue management theory regards the gap between social expectations and organizational activities as an issue. The theory attaches importance to impacts of social expectations on organizational actions. The theory emphasizes analyzing how to respond the social expectations with organization activities, typically starts from the controversial issues and conflicting values between society and organization. The overriding goal of an issue management function is to enhance the current and long-term performance and standing of the corporation by anticipating change, promoting opportunities, and avoiding or mitigating threats. (Renfro,1993)

Secondly, issue management theory is process-oriented and prospective. Issue management tracks the evolutionary trajectory of each issue, covering the entire process from the outbreak of social disputations to mitigation. Issue management consists of four core functions: engaging in smart business and public policy planning, playing tough defense and smart offense, getting the house in order, and scouting the terrain to gain early warning about troublesome issues. (Heath,1990) Issue management encourages
organizations to take proactive approaches in the developing process of issue and to response the social expectations with proper measures. (Palese et al., 2002) The theory strives to assist the organization in avoiding an adverse event further escalating into a crisis and is instrumental in responding effectively to business criticism. Issue management facilitates the organizations more responsive and gives them time to plan and constructively deal with change.

Thirdly, different analytical levels of issue management theory are instrumental in coping with the complexity of social expectations. On the macro level, issue management theory highlights the impacts of interaction between business organizations and the society on a specific issue, such as the issue life cycle theory. It identifies the trend of a social issue assisting the organization to gain insights into the direction of external pressures and to anticipate potential risks caused by social expectations. On the individual level, issue management discusses how an individual organization confronts multiple social responsibility issues. For individual corporations, it provides management approaches to integrate social responsibility issues into routine management, such as PDCA cycle. A specific issue is internalized as a managerial objective or an item of the daily management of social responsibility. Issue management provides organizations with a way to address multiple social responsibility issues.

Therefore, issue management theory is of great significance for MNCs to cope with diversified social expectations in the construction of a sustainable supply chain.

3.1.2 Necessity of Exploring Issue Cognition Mechanism of Individual Organizations

Previous issue management studies regard the issue identification as the starting point of which individual companies determine the various issues that required to be addressed. The implicit premise is the issue cognition of individual organizations is a part of the issue management cycle, which means the issue cognitive process of individual organizations is spontaneous and naturally happened. Issue myopia theory explained that cognitive barriers of individual organizations would lead the organization narrowly ignored many expectations of society. However, due to the insufficient discussions on the cognition mechanism of individual organizations, previous issue management researches provide inadequate explanations of internal reasons and solutions to issue myopia. Therefore, the necessity of exploring the issue cognition mechanism of individual organizations is reflected in the following aspects.

Firstly, previous studies have proposed the potential adverse effects on CSR practices caused by insufficient issue cognition, but without clarifying the cognitive mechanism that leads to the phenomenon.

The cognitive barrier to issues cognition of an individual business organization will lead
the organization to narrowly perceive the various expectations of the society resulting in failing to completely identify the social responsibility issues that required to be addressed. Therefore, issue myopia caused by the cognitive barrier of an individual organization accounts for the failure of CSR management, even for the company that with a socially responsible sense and ethical principles. An organization's failure in identifying issues associated with social expectations would result in insufficient countermeasures, which raises the possibility of falling into crises related to CSR issues. Therefore, we argue clarifying the mechanism that caused issue myopia is helpful to improve the CSR performances and alleviate potential crises.

However, past researches did not clarify the issue cognition mechanism of an individual business organization and did not explore how the cognition mechanism impact the CSR practices and outcomes. We view it is necessary to discuss the issue cognition mechanism of an individual organization on the basis of existing issue management theories.

Secondly, enactment theory on organizational cognition enlightens us to discuss the issue cognition mechanism of an individual organization. Organizational cognition is the process of which an organization retrospectively processes the equivocal information from external. Communication is the interactive window between the organization and the external and provides the content for enactment. Organizational perception is the prerequisite of generating communication willingness of organization. When cognitive accumulations (retention) of the organization cannot explain the issues encountered, it will promote the organization to communicate. Organizational cognition requires that the organization first perceives the changes of the external environment and generates the need for communication, so as to provide the organization with new information flow to promote its cognition.

CSR issues generates from social expectations, which means the external environment of an organization. Meanwhile, enactment theory emphasizes the role of interactions between the organization and the external environment in the process of organizational cognition, which conforms to the essence of CSR issues. Therefore, we believe that cognition mechanism that impact the issue cognition of individual organizations can be explored under the guidance of this theory.

Thirdly, factors that impact the issue cognition mechanism of an individual organization need to be explored. According to the above analysis, it is necessary to find out the causes of issue myopia to improve the effectiveness of issue management. At the same time, organizational cognition theory emphasizes the importance of organizational communication. However, in the development process of CSR issues, whether communication affects the issue cognition of an individual organization and how it affects need to be discussed.

Finally, performances of some MNCs in the construction of the sustainable supply chain is criticized by society. The discussion of the issue cognition mechanism can help organizations find a reasonable way to response social criticisms and avoid crisis caused by issue myopia. From the current theory, one of the possible reasons for the criticism of MNCs is that the complexity of CSR issues has led the MNCs to unconsciously fall into
the narrow response to the various expectations of the society. Companies are unable to perceive the gap between their actions and social expectations.

Accordingly, effective issue management is conducive to the construction of a sustainable supply chain of MNCs, but the premise is the organization's cognition of social expectations. The discussion on issue cognition mechanism is helpful to analyze the issue cognitive process of individual companies.

3.2 Issue Cognition Cycle

Based on the above analysis, we discuss the issue cognition mechanism of an individual business organization. One of the objectives of the Issue Management is to facilitate the company to give responses in advance to the social problem that potentially trigger the business crisis. (Palese et al.,2002) According to the analyses above, the degree of issue cognition of individual business organization affects the organization's activities to respond the social expectations. Therefore, the gap between individual companies' cognitions of the issue and social expectations is the goal of an individual organization's issue management. To clarify the objectives of issue management, we need first to identify the gaps in faced by an individual organization in dealing with an issue.

3.2.1 Gaps between Corporate Actions and Social Expectations under Impacts of Cognition Mechanism

This section taking the issue management theory as the theoretical context and discusses the gap between the issue cognition of an individual organization and social expectations. The issue cognition of the organization is affected by the issue cognition mechanism. Accompanying the development of the issue life cycle at the macro level, the cognitive mechanism of an individual business organization determines the organization's cognition of the issue and responses activities.

An issue stems from a gap between practices of business organizations and the social expectations, which typically demonstrated by controversies and social concerns on certain social reality. At the macro level, issue management involves dealing with the gaps between business communities and society in their perceptions of issues. Therefore, Issue Management is also the management of the cognition gap, which aims to bridge the cognitive gap between the business communities and the society, including how to define core contents of the issue and how to define responsible standards of CSR behaviors.

Business communities respond to the issue through an internalization process about social expectations. Individual business organizations of business communities internalize
an identified gap into an item of issue management of CSR. However, some of the individual companies would suffer from the issue-cognitive difficulty, which is caused by cognitive obstacles and lead to the insufficient identification of the gap during the internalization process. Then they have fallen into the issues myopia and cannot make a response to the issue timely and thoroughly. In severe cases, they would be exposed to crises caused by the issue.

Therefore, a gap arises between the perception of the business community and perception of an individual business organization. An individual company is affected by an emerging issue at each stage of the issue life cycle, but the impacts are more striking when a company's practices have fallen into controversies. For the sake of clarifying, it is necessary to detail gaps among the social expectations, the perception of the business community, and the perception of an individual business organization.

At a certain point in the issue life cycle, the gap between the perception of business organizations and social expectations can be divided into:

- **GAP 1: the gap between social expectations and perceptions of the business community.**

  In an issue's life cycle, we can view this gap as a cognitive gap between business community and the society. There is no universal agreement between the business community and the society on settlement criteria and solutions for the issue. But the business community has responded to societal expectations.

  The society has a perception of the feedback behavior from the business community. The society's perception may be guided by some signals sent from the businesses community, for example, some company's best practices, or business CSR commitment.

- **GAP 2: the gap between the perception of business community and the perception of an individual business organization.**

  The gap is a cognitive distance on the issue between an individual company and the business community caused by the issue cognition difficulty or issue cognition obstacles.

  The gap can be described as an inconsistency in perception of the issue within the business community, such as whether a corporation has an awareness of the social requirements, whether the company clarifies the gap between its performances and the social expectations, or the way of reaction. Dart et al. (1984) argued individual organizations have different types of interpretation of the external environment, while the understanding degree of external environment pertains to management's beliefs about the environment and the willingness of organizational intrusiveness.

  The highest point is the optimal response from the business community that society can perceive on relevant issues.
• **GAP 3: the overall gap between social expectations and perception of individual business organizations.**

Gap 3 includes the gap at the macro level, which between perceptions of business community and social expectations (Gap 1). As well as the gap between the perception of business community and perception of an individual business, which resulted from the issue cognition mechanism of individual organizations caused in the internalization process of business community (Gap 2). Gap 3 should be the objective of the issue management of individual companies.

![Diagram of Cognitive Gaps Implied in Issue Management Theory](image)

**Figure 11. Cognitive Gaps Implied in Issue Management Theory**  
*(Source: From the Author)*

To Gap 1, the existence of a gap is a precondition that triggers social concerns on the issue. At the macro level, the cognitive gap between society and business community on some social phenomenon or social realities has existed for some time, and the issue becomes explicit when active actors identify and name it. The Gap 1 should be identified from the beginning of the issue’s outbreak to guide the responses of the business community. Moreover, without proper intervention of the business community, the gap will gradually expand under the influence of multiple factors with upsurge social concerns.

For Gap 2, however, it is a challenge for a company to self-coordinate the issue perception gap between itself and the overall business community under the influence of cognitive limitation. The business community is a collection of numerous individual corporations, whose perception degree of an issue is affected by their cognitive abilities. If there is no reasonable approach to break through the limitation of cognition, it is difficult for individual companies to automatically understand the issue and reach an agreement with overall perception of the business community. Alternatively, to achieve the optimal state of issue cognition. The expansion of the Gap 2 is not only a potential prerequisite for a company suffering social criticism but also a premise for CSR crisis.
When individual organizations fail to take Gap 3 as a target of addressing the issue, it leads to narrow responses of social expectations.

According to the above analysis, we can infer that: Firstly, Gap 2 ignored by the previous issue management theory is an implicit premise, resulted in the neglect of individual organizations in seeking proper approaches to break the cognitive limitation. Ackerman et al. (1976) proposed that in the process of issue life cycle, managers have the zone of discretion to decide whether the organization should deal with the issue. (Figure 12) Managers decide whether to lead or lag behind social expectations. This discretionary space reflects the need for managers to recognize the issue. When a company over-leg behind social expectations, it will trigger social criticism on individual companies. Secondly, Gap 2 impacts on the issue management of the business community. Gap 2 led to a diversified response within the business community and the dilemma of individual companies in dealing with social responsibility issues. Therefore, individual organizations need to mitigate the adverse impacts of Gap 2.

Figure 12. Patterns of Corporate Responsiveness  
(Source: Ackerman et al., 1976)
3.2.2 A Theoretical Conception of Issue Cognition Mechanism

Based on the above analysis, issue cognition mechanism is a determinant of whether an issue will adequately enter the issue management cycle of individual organizations from the macro business community level. In order to alleviate the impacts of the issue cognition limitation of individual organizations, we proposed the issue cognition mechanism of an individual organization in this section.

As mentioned in the previous chapter, constructivism theory is a branch of organization cognition theory. Constructivism theory explains the relationship among the external environment, organization cognition and organization action into a reaction cycle. Changes occurred in the external environment initiate uncertainties and equivocal information. After organization perceives uncertainties, the process of organization sensemaking is triggered to reduce equivocality of the information flow and to form reasonable explanations for the changes it could perceive, as to guide its actual action. (Weick,1979, Daft et al.,1984)

The enactment theory has discussed a process through which an organization constructs its cognition. The organization’s perception of the external environment provides information for the enactment process, and change of the environment is a prerequisite for motivating organizations to perceive. The organization’s ability to perceive the external environment is influenced by a variety of internal and external factors, such as organizational culture and management ability. Therefore, the perception needs of individual organizations caused by the changes in the macro-environment are the premise for organizations to conduct its issue cognition. From the perspective of issue management, the social expectations perceived by the organization are likely to be internalized as the goal of CSR management. However, issue cognition is a prerequisite for an organization to respond to social expectations.

Therefore, issue cognition process should include:

① Environmental changes that stimulate an organization to conduct issue cognition. The issue life cycle theory describes changes in the external environment of the organization at the macro level. The changes of an issue in its life cycle will make the organization perceive the changes of external environment, which bring ambiguous information flows that beyond its existing cognition to the organization, so as to promote the organization to conduct the new cognitive process.

The progression of an issue at the macro level is accompanied by the improvement of social concerns and the expansion of the controversial environment. The new information conveyed in the disputes over the issue go beyond cognition of social expectation of individual organizations. Therefore, changes in the macro environment of the issue will encourage organizations to conduct a new cognitive process of social expectations.

② Issue cognition process of individual organizations. The issue cognition process of an organization includes the enactment, selection, and reservation on the information.
The preconditions of enactment include an organization perceives the degree of environmental changes and insufficient cognitive retention. Enactment requires information exchange with the external, thus bringing a new flow of information. The selection process combines the prior cognitive retention of the organization and processes the information flow to form an interpretation of the environment. Retention is the accumulation of organizational cognition.

The issue cognition of individual organizations requires to communicate with the external environment and identify the gaps. Due to CSR issues related to social expectations and the issue cognition limitation of individual organizations, an organization must undergo a process of information exchange with the external environment. New information that related social expectations urges the organization to conduct issue cognition process, which provides an opportunity for the organization to successfully cope with social expectation and narrow the gaps.

③ Issue management process of individual organizations. Issue cognition instructs the issue management process, serving as implied corporate values and standers that determine countermeasures for social expectations.

### 3.3.3 Issue Cognition Cycle of Individual Organizations

A model of issue cognition cycle is introduced in this section. Based on the above analysis, we suggest that issue cognition mechanism of an individual organization the root cause caused issue myopia.

In the following text, we further discussed the issue cognition mechanism, which is not only an exploration for essential reasons of issue myopia but also helps to analyze the effectiveness of communication in alleviating the issue myopia in CSR management. Therefore, we decide to discuss the cognitive process of individual companies on an emerging issue as a separate cycle and name it the Issue Cognition Cycle.

We divide the whole process of issue management into three interlocked cycles. The cycle starts with the emergence of the cognitive gap between businesses and society in the issue life cycle, and ends with social expectations were internalized by an individual organization as issue management objectives. The final objective is to narrow the gap between social expectation and businesses behavior.

① The Issue Life Cycle, which is used to identify the development stage of CSR issues at the macro level. Firstly, the cycle illustrates an interactive process, through which we can see how society and business community gradually reach a consensus on a controversial issue in CSR scope. Secondly, this cycle represents the existence of a cognitive gap. The cognitive gap varies with the changed in issue life cycle.

② Both Issue Cognition Cycle and Issue Management Cycle pertain to individual
enterprise. In the cognitive cycle, individual enterprise shapes its basic norm and program of action to cope with the issue, after forming its interpretation and analysis of the social problem according to its cognitive ability.

3. Issue Management Cycle is the action cycle. An individual organization adopts different management approaches to promote practical actions of CSR. Company responds to social expectations with these actual actions, including countermeasures for existing gap.

We view that interrelationships among the three cycles can be understood as follow.

- Variations on the issue life cycle represent the stage of issue development on the macro level. The variations are happened in the external environment of an individual organization and not in the controlled by individual organizations. However, variations are accompanied by up and down of social concerns, affecting the cognition cycle of an individual company.

- The cognitive cycle of individual enterprises has two outputs, namely the interpretation of the environment changes and the instruction of the management cycle.

- The management cycle under cognitive guidance also has two outputs, namely feedback flow 1 to organizational cognitive cycle and feedback flow 2 to the macro issue environment.

- Feedback flow 1 affects the accumulation of organizational knowledge, while feedback flow 2 testifies effectiveness of CSR practices of an individual company and affects the progress of the issue life cycle at the macro level.

The issue cognition cycle consists of three successive steps.

- **Enactment of new information**

  Enactment is a demarcation of information framing the volume and content of information. Enactment injects information into the organization, and the information flow is further processed in the follow-up stages in the cognition cycle. The willingness of cognition is the premise of enactment. The gap (or social requirements or expectations) that are perceived by an individual organization will be processed by its Issue Cognition Cycle and may inspire the company to seek to corresponding countermeasures.

  The previous retention is an influencing factor on enactment, including organization culture, the experience of executives. Enactment is the only window for an individual company to interact with the macro environment in the process of issue management.

- **Selection**

  The Selection means combining with the previous retention, an individual organization screens the information that it considers reasonable in the given information flow. In the
selection, an individual organization processes the information flow and form the interpretations, which convert into rules or constraints that guide its future decisions or actions.

In the process of CSR management, the selection is a stage in which company coordinate issues with such as organizational value or organizational commitment, thus to form countermeasures coping issues.

■ Retention

Retention is reservation of information and receives feedbacks from issue management cycle. The retention reflects organizational values and affect the Enactment and Selection.

![Figure 13. Model of Issue Cognition Cycle](image)
(Source: From the Author)

3.3 Selected Case

The case study enables us to deeply analyze the issue cognition of an individual organization at different stages according to the issue life cycle, which reflects the issue recognition mechanism of individual organizations. The case selected in our study is on the interaction process between Chinese environmental NGOs (represented by IPE) and Apple Inc. (hereinafter referred to as Apple) on the environmental issues of Apple’s suppliers in China.

In 2009, some mass incidents caused by heavy metal pollution had erupted in several economically developed regions of China, which increased social attention to
environmental pollution caused by heavy metal production.\textsuperscript{79} Due to the processing of electronic products involves many kinds of heavy metals. Chinese environmental NGOs advocated the IT industry to pay attention to the environmental issues of Chinese suppliers since from 2010. In the following case, Apple gradually changed its attitude towards the environmental issues of suppliers in China. The case covers Apple’s entire reaction process. Apple initially refused to communicate with Chinese environmental NGOs, and eventually collaborated to promote the reduction of environmental impacts in the supply chain of IT industry.

Theoretically, changing process of Apple’s issue cognition can be discussed and studied. In practice,

\begin{enumerate}
\item This case reflects the typical environmental issues in the SSCM of MNCs.
\end{enumerate}

Commissioned Manufacturing is a typical production mode in the IT industry, which leads to complicated subcontracting relationships in the supply chain of electronic components. Direct suppliers (Original Equipment Manufacturer, OEM) of electronic components usually subcontract certain manufacturing processes to subcontractors. Therefore, the actual manufacturing process of a certain electronic product involves not only assembly suppliers, but also direct suppliers of electronic components, subcontractors who undertake specific production processes, and subcontractors who share the task of order. The subcontractors form a vital part of the supply chain of IT industry materially.

Due to the lack of a systematic supplier environmental management system, MNCs are unable to detect environmental violations including subcontractors in their supply chain promptly. The supply chain of IT industry disperses the high-pollution and high-emission procedures in the productions of electronic components, and the complicated subcontracting relationship concealed the subcontractors’ violations of CSR. Subcontractors’ environmental impacts escaped from the supervision of the core company, but the environmental hazards caused by the production process of electronic products were not reduced by subcontracting.

Some suppliers who illegally discharged industrial wastewater contaminated with heavy metals caused significant water and soil pollution in the local community, especially involving manufactures of Printed Circuit Boards (PCB). Neighborhood residents were suffering from pollution caused by the manufacturing process of their product, which evidence that MNCs violated their commitments and standards of CSR. Some suppliers of IT industry, who were affected by the low-cost procurement policies of the MNC, had little incentive to improve environmental violations in the absence of environmental

\textsuperscript{79} In 2009, the Ministry of Environmental Protection of China received 12 incidents of heavy metal and metal-like pollution in such as Shaanxi Fengxiang. These incidents resulted in 4035 people blood lead exceeding the standard and 182 people cadmiums exceeding the standard, triggering 32 mass incidents. Subsequently, heavy metal pollution occurred several times and became the fuse of mass incidents many times.
regulation and public supervision. The social responsibilities of MNC should include the accountability for supplier environmental performance. Socially responsible MNCs should not tolerate supplier environmental violations.

② China is the world factory for product processing in the electronics industry. As a giant in the IT industry, Apple has great influence on the construction of the sustainable supply chain in China.

The figure below is based on Apple's 2017 supplier list, including 778 factories of Apple’s top 200 suppliers. The products produced by these factories account for over 98% of Apple's procurement expenditures for product materials, manufacturing, and assembly in 2017. The number of factories in mainland China is close to 50%, which is also a universal phenomenon in the IT industry.89

③ The case indicates the role of NGOs, which are established in the developing countries, in promoting the sustainable supply chain.

Due to the lack of awareness of environmental protection and inadequate government supervision, environmental violations in production enterprises accompany the rapid emerging of China economy, which endangers the health of local residents and brings many unstable factors to Chinese society. The costs of environmental violation imposed by government regulation were insufficient to urge the manufacturer to the environmental protection facilities. Therefore, Chinese environmental NGOs related the MNC to the remediation of environmental pollution issues in China.

Meanwhile, the NGO called for public supervision as an incentive to push the MNC to promote environmental solutions in the supply chain in China. On the one hand, Chinese environmental NGOs jointly set up a public supervision platform to seek public support; on the other hand, they pointed out the social responsibility of MNC on environmental issues in the supply chain and required them to improve their supervision policies on suppliers.

The initiative of Chinese NGOs and continuous communication with Apple played an important role in improving the CSR performance of the supply chain of the IT industry.

Figure 14. Regional Distribution of Apple’s Global Supplier Factories in 2017
(Arranged by the author)

Figure 15. Ratio Chart of Regional Distribution of Apple’s Global Supplier Factories in 2017
(Arranged by the author)
Chapter 4. CASE STATEMENTS: APPLE INC. AND IPE

4.1 Issue Emergence

4.1.1 Issue Raised: Chinese NGOs Raised Supplier Environmental Issue of MNCs

Green Choice Alliance (GCA) is a green initiative proposed in 2007 by an alliance of 21 Chinese NGOs. GCA was initially committed to promoting the global retailing giants to supervise environmental performances of suppliers in China. To this end, brand buyers as GCA members undertake to inspect the factory which was identified with violating environmental regulations in their supply chain. When the supplier is confirmed to be unwilling to rectify or unqualified to comply with the environmental regulations, GCA members will terminate the procurement from the violator.

Institute of Public & Environmental Affairs (IPE) is a non-profit environmental research organization registered in China, based in Beijing and established in June 2006. The founder of IPE (Ma Jun) was named as one of the world’s 100 Most Influential People by TIME magazine in 2005. IPE set up a data-searching platform titled Environmental Public Interest Database in August 2006. The platform integrates public information about illegally polluting factories that punished by the government administrative department of China. MNCs can timely identify whether there are violations among their supply chain by comparing their supplier’s list and the information integrated into the platform. Moreover, it also helps companies promptly urge the illegal supplier to make rectification and to provide public explanations. Many retailing brands participate in the GCA’s project in succession, including GE, NIKE, and Walmart.

In 2010, the NGO coalition primarily led by IPE, Friends of Nature and Green Beagle, extended this campaign to the IT industry. At that time, China has become a significant low-cost manufacturing center of the global IT industry. However, heavy metal contaminations caused by the manufacturing process of IT products posed a grave threat to ecological circumstance and public health. On April 15th and 16th, 2010, Chinese NGOs warned environmental pollution problems of the brand’s supply chain in China and delivered their investigation reports to the CEO of 29 global-known brands of the IT
industry separately by Email. Due to the insufficiency of public available supplier information, NGOs use “suspected suppliers” to express the relationship between brands and IT product manufacturers. Environmental violations caused by these manufacturers involved water pollutions and heavy metal emissions in the manufacturing process of IT products.81

NGOs requested the MNC to confirm if any association with the identified manufacturer, asked whether it had any awareness of the supplier's environmental violations, and questioned whether any other suppliers had been identified with environmental violations in China. Many questions are related to the inquiry whether the brand had established the corresponding management system of the supplier environmental performances.

In the beginning, NGO alerted the MNCs to pay attention to supplier environmental violations, regarding water pollution and heavy metal emissions in the production of IT product components. In addition, NGOs also expressed concerns about the environmental policies of MNCs’ supply chain, asking whether they had established an environmental protection system and whether they prepared to take measures against supplier environmental violations.

First of all, the Chinese environmental NGO raised the issue of supply chain environment and tried to establish communication with MNCs on the issue. Therefore, their propositions during this period were mainly as follows:

- Require the IT companies to recognize that environmental responsibility in their supply chains includes responsibility for supplier environmental performance, particularly for supplier environmental violations in China.
- Require the MNC to acknowledge that the public has the right to acquire to the information of the environmental performance of their suppliers, and note the public concerns on the related issues.

### 4.1.2 Apple’s Policy on Supplier Responsibility (SSCM) before the Incident

- **Supplier Responsibility Program and Related Standards**

  Since 2005, Apple has implemented the Supplier Responsibility Program that includes establishing a Supplier Code of Conduct and releasing its Supplier Responsibility Progress Report annually. In 2006, a final assembly plant of iPod in China was exposed by the

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media for it forced workers in poor working and housing conditions. Later, Apple strengthened a series of management measures in the plants of the supplier, aiming to improve worker’s rights and working conditions.

Before 2010, Apple’s supplier code of conduct that principally adapted from the Electronic Industry Code of Conduct (EICC) and the International Labor Organization (ILO) conventions. These guidelines mainly required suppliers to protect the labor rights of the worker and to provide fair and safe work conditions for the employee. In 2009, Apple started to collaborate with Verité, an international NGO engaged to ensuring fair labor condition in the supply chain, to do workshop training for the human resources staff in the final assembly manufacturers for CSR management courses.

Apple defined its supply base in the Supplier Responsibility 2010 Progress Report issued on the January, which indicated its management scope of social responsibility of suppliers in 2010 covering the final assembly manufactures, the electronic component suppliers that either manufacture the parts or the component, and the nonproduction suppliers. In 2007, the compliance auditing of suppliers expanded to 34 component suppliers for the first time. “34 second-tier facilities, which manufacture and deliver components to our final assembly partners. However, Apple did not disclose any identifiable information on these suppliers or on the violation.

![Apple's supply base](image)

**Figure 16. Apple’s Definition of Supply Base in 2009**
(Source: Apple’s Supplier Responsibility 2009 Progress Report & 2010 Progress Report)

- **Compliance Auditing of Suppliers**

Apple’s compliance auditing of suppliers was to conduct the annual audit of the supplier’s social responsibility in accordance with the Code of Conduct. The supplier was required to quarterly submit the self-assessment report on the Key Performance Indicators (KPI) for social responsibility to compliance monitoring. “Apple incorporates social responsibility performance indicators in business review scorecards with all final
assembly manufacturers and suppliers of the components.* *(Apple, 2010)*

Apple conducted selective onsite audits of suppliers in the past years. The premise of the onsite audit was each suppliers’ risk assessment, including the self-assessment questionnaire submitted by the supplier, the location of the factory and the level of business involvement.**(Apple, 2007)**

In 2009, the audit group was led by Apple’s supplier responsibility auditor and hired local third-party auditors. The audit process was based on the audit protocol and the checklist of the code. The supplier responsibility auditors were responsible for coordinating with the purchasing manager on the audit results and following the corrective action.

![Diagram of audit process]

**Figure 17. Apple’s Auditing Policy in the Supply Chain in 2009**  
(Source: Apple’s Supplier Responsibility 2010 Progress Report)

The evaluation results of suppliers are generally divided into in Compliance and Violations. Violations are divided into core violations and frequent violations. All violations are required to be corrected, with a maximum corrective period of 90 days. The core violation means a major breach of the supplier code and was required to be corrected immediately. Besides, the manufactures that with core violations would be punished into a probation period usually up to one year, during which Apple would terminate the business relationship with the supplier if any reoccurrence of violation. When the supplier was accused of irregularities by NGOs or workers, Apple would conduct internal audits and surprise reviews. (Apple, 2010)

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Environmental Commitments in the Supply Chain

In 2010, Environmental Impact was firstly enlisted in Apple’s supplier code of conduct in the 2010 progress report. Apple raised a commitment of environmentally responsible manufacturing processes, “use environmentally responsible manufacturing processes wherever Apple products are made”, and ranked “the significant threat to the environment” as core violations.

Some of the environmental violations in the supply chain were published in the 2010 report, and three suppliers had the improper disposal of hazardous waste, and 44 facilities had no environmental impact assessment or air emission permits.

Apple Supplier Code of Conduct

<table>
<thead>
<tr>
<th>Labor and Human Rights</th>
<th>Health and Safety</th>
<th>Environmental Impact</th>
<th>Ethics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Antidiscrimination</td>
<td>• Occupation injury prevention</td>
<td>• Hazardous substance management</td>
<td>• Business integrity</td>
</tr>
<tr>
<td>• Fair treatment</td>
<td>• Prevention of involuntary labor</td>
<td>• Wastewater management</td>
<td>• Disclosure of information</td>
</tr>
<tr>
<td>• Prevention of involuntary labor</td>
<td>• Prevention of underage labor</td>
<td>• Air emissions management</td>
<td>• Whistleblower protection and anonymous complaints</td>
</tr>
<tr>
<td>• Juvenile worker protections</td>
<td>• Occupational safety procedures and systems</td>
<td>• Solid waste management</td>
<td>• Protection of intellectual property</td>
</tr>
<tr>
<td>• Working hours</td>
<td>• Ergonomics</td>
<td>• Environmental permits</td>
<td>•</td>
</tr>
<tr>
<td>• Wages and benefits</td>
<td>• Dormitory and dining</td>
<td>and reporting</td>
<td>•</td>
</tr>
<tr>
<td>• Freedom of association</td>
<td>• Health and safety communication</td>
<td>• Worker feedback and participation</td>
<td>•</td>
</tr>
</tbody>
</table>

Management Commitment

| • Company statement     | • Documentation and records | • Worker feedback and participation |
| • Management accountability and responsibility | • Training and communication | • |

Figure 18. Apple’s Supplier Code of Conduct in 2009
(Source: Apple’s Supplier Responsibility 2010 Progress Report)

4.2 Issue Expansion

4.2.1 Apple Refused to Respond to Persistent Appeals from NGOs

Although some IT companies had responded positively to the environmental NGO initiative by establishing communication with NGOs about related environmental issues in the supply chain in China, Apple Inc. did not reply at that time. Some brands conducted follow-up actions after receiving the letter.

On April 26th, 2010, Chinese environmental NGOs disclosed the communication
progress with the targeted IT companies to the public in a study, 2010 Study of Heavy Metal Pollution by IT Brand Supply Chain. NGOs appealed to the responses from the inactive brands.

In the report, environmental NGOs advocated the corporate accountability of the IT global brands for the environmental impacts raised by their suppliers. They held that: the IT-brands who commit to being responsible for society and the environment should also be responsible for the adverse environmental impacts produced in the manufacturing process of their products in China. MNCs’ supervision of CSR in the supply chain merely involved their assembling suppliers in China who are just on the first layer of their supply chain for the IT industry. However, high contamination in the production process of IT products occurs mostly in other sub-contractors in the supply chain besides the first-layer suppliers. IT brands should strengthen environmental performance management of the actual suppliers of the electronic products.

NGOs argued that MNCs should take responsible actions to mitigate the environmental impacts of the supply chain, which should include imperative supervisions of the environmental violations caused by their subcontractors. NGOs requested that IT-brands who had made super profits at the expense of the environment in China, should hold accountabilities for Chinese environmental protection and pay attention to the pollution problems in the supply chain.

The NGO called on the MNCs in the IT industry: to promote the disclosure of environmental information of the supplier, to put the environmental impacts that caused in the supply chain under the public supervision, to incorporate the environmental criteria into the supplier selection process, and to expand the scope of environmental assessment to the upper supplier located in their supply chain. More importantly, MNCs should establish a systematic supplier environmental management system and expand the supervision scope of environmental impacts.

However, Apple did not respond to the Chinese environmental NGOs on this report.

Pacific Environment (PE) is an international NGO based in New York. The organization contacted the supplier responsibility manager of Apple on May 25th and urged Apple to respond to the investigation of the Chinese NGOs. The next day, on May 26th, the manager replied that Apple could not confirm or deny whether the factories cited in the report were Apple’s suppliers, because Apple had not received the email from Chinese environmental NGOs before. They would do the field investigations on the manufacturer’s factories mentioned, but would not give any public available details or timetable.

On June 4th, 2010, PE inquired Apple again whether the company would check other possible environmental irregularities related to Apple’s suppliers. Apple did not respond anymore.

On June 5th, IPE issued the second study report on the global IT industry’s supply chain located in China. By that moment, 21 brands had separately replied to the NGO with diversified means including written notice, phone communication, and meeting. Some of
the brands, like Samsung, Panasonic, and HP, conducted a second-round communication with IPE. However, Apple still did not answer directly to the Chinese environmental NGOs.

On June 29th, PE launched a consumer campaign in American, which appealed to Apple for a reaction on investigations by Chinese environmental NGOs. By July 6th, 2010, nearly 900 American consumers wrote to Apple, requesting a positive reply of Apple with answering Chinese environmental organizations. That same day, PE got in touch with the Apple's Supplier Responsibility manager again and reiterated the previous statements.

On July 15th, 2010, Apple replied to PE, an international NGO based in the USA, and the Chinese NGOs with an announcement that Apple refused to disclose any information about their suppliers, including potential investigations schedule or results.

On July 22nd, 2010, IPE (the Chinese environmental NGO) made contact with Apple’s Manager of Supplier Responsibility.

IPE argued that the MNCs have an obligation to promote the CSR performances in the supply chain and emphasized the ecological risks to the local community caused by the excessive emission in IT products production cycle. Therefore, IPE raised the necessity for improving the public supervision of local communities to urge Apple to the public the supplier’s information and keep transparencies in the supply chain.

IPE put forward the attainable of the MNCs’ promotion CSR in China with a way of restraining their supplier’s environmental violations in the supply chain. The NGO recommended some cases for reference on how the MNC succeeded in supply chain management by the “China Pollution Map Database” and made an introduction of the development of mandatory environmental information disclosure that promoted by the Chinese government.

•  “Many people attribute Apple’s corporate success to its culture of secrecy. Starting with Apple’s unique and inimitable operating system, the company has developed a convention of secretive work. This convention has contributed to the uniqueness of the company’s technology and products, and helped it to make greater profits than its competitors”  

“A culture of secrecy means that a company does not voluntarily disclose information to the public. Apple’s lack of response to the public goes beyond non-disclosure.”

Meanwhile, IPE urged Apple to confirm the environmental violations by Apple’s suppliers, specially identified a violation company, Lian Jian (Su Zhou) Technology Limited.

Lian Jian (Su Zhou) was an OEM supplier of electronic products, which mainly produce the touchscreen of the iPhone for Apple. From 2008 to 2009, mainstream mass media of

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China successively revealed the manufacturer intruded on their employee healthy rights in the productive process of iPhone’s touchscreen. To improve production efficiency, the factory ordered the employees to wipe the touchscreen with toxic chemical solvents instead of alcohol, but did not inform the employees of the toxicity and did not provide adequate protective equipment, which resulted in dozens of employees chronic poisoning. The supplier severely prejudiced to the legitimate rights and interests of the workers, which violates the commitment of Apple to ensure safe working condition in the supply chain in Apple’s Supplier Code of Conduct. Additionally, Lian Jian (Su Zhou) was under administrative penalties for improper disposal of hazardous waste in the production process, which has brought great harm to the local environment.

On August 11th, the NGO released its third survey on IT industry, which detailed the responses by the brands that under investigations to supplier’s environmental violations and analyzed their attitudes to advance the governance on environmental performance in the supply chain. Some brands began to explore ways to improve their green supply chain in China, but Apple was rated as passive.

On August 12th, NGOs re-informed Apple that some practices in the supplier’s productive process involved violations against the CSR principles. Moreover, Apple’s failure to respond has exceeded the bottom line of the MNCs’ CSR. Apple was required to provide an open explanation and strengthen its supplier management of Lian Jian (Su Zhou). At the same month, one other international NGO Business and Human Rights Resource Center that based in the United States wrote to Apple. The organization also urged Apple to respond to the incidents of their supplier adequately.

On December 22nd, 2010, Apple answered that it could not confirm the business connection with Lian Jian (Suzhou) and restated its strong stance on secret supply chain management. Apple replied that “Apple has a long-standing practice of not disclosing our supply base” and “we could still not find a connection for Apple to drive corrective action”. Apple required NGOs to provide more of evidence that Apple had a supply relationship with the illegal suppliers.

On December 23rd, 2010, The Pacific Environment Organization answered Apple’s correspondence and quoted a large volume of publicly available documents as evidence to certify that Lian Jian Technology was a touchscreens supplier of Apple.

On January 1st, 2011, several poisoned employees of Lian Jian Technology company wrote to Steve Jobs. “We hope that Apple Inc. will strictly monitor the violating behavior of OEM companies, as well as push for due compensation for victims.” said by these employees. (IPE, 2011)

On January 13th, 2011, the environmental protection organizations received replies from Apple. Apple reaffirmed unequivocally: As we said in our previous responses, Apple has a long-standing practice of not disclosing our supply base. The employees of supplier did not receive any reply from Apple Inc. at that time.
<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Chinese Environmental NGOs</th>
<th>International NGOs</th>
<th>Action and Attitudes of Stakeholder Involved</th>
<th>Other Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
<td>IPE, Friends of Nature and Green Beagle, etc.</td>
<td>Pacific Environment</td>
<td>Issued The Green Choice Alliance(GCA) initiatives.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Apr.15 &amp;16</td>
<td>Delivered investigation reports separately to CEOs of 29 famous IT brands on the environmental pollution problems of the IT industry Supply Chain.</td>
<td>Continuous concerns of Chinese NGOs investigations</td>
<td>No comments</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Apr.26</td>
<td>IPE disclosed the communication progress with the targeted companies in a study named &quot;2010 Study of Heavy Metal Pollution by IT Brand Supply Chain&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>May.25</td>
<td>Wrote to Apple's Supplier Responsibility manager</td>
<td></td>
<td>The manager replied that Apple had not received the email from Chinese NGOs, so they could not confirm or deny whether the involved factories were suppliers to Apple.</td>
<td>No comments</td>
</tr>
<tr>
<td>2010</td>
<td>May.26</td>
<td></td>
<td></td>
<td>Emailed to Apple again hoping the company would check if there are other environmental irregularities related to Apple's suppliers.</td>
<td>Apple did not respond anymore.</td>
</tr>
<tr>
<td>2010</td>
<td>Jun.4</td>
<td>Issued the second study report, 21 brands had replied to the NGO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Jun.11</td>
<td>Issued IT Industry Investigative Report 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Jun.29</td>
<td>A phone call to the Supplier Responsibility manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Jul.11</td>
<td>US consumers demand a greener Apple for China</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Jul.15</td>
<td></td>
<td></td>
<td>Apple replied to IPE and the Chinese NGOs: refused to disclose any information about suppliers, including potential investigations schedule or results.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Jul.22</td>
<td>Specified the problem of Lian Jian company to Apple.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Aug.11</td>
<td>Issued IT Industry Investigative Report 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Aug.12</td>
<td>Specified the problem of Lian Jian company to Apple.</td>
<td></td>
<td>Business and Human Rights Resource Center: Wrote to Apple asking for answers</td>
<td></td>
</tr>
</tbody>
</table>
(Source: from the author)

<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Chinese Environmental NGOs</th>
<th>International NGOs</th>
<th>Action and Attitudes of Stakeholder Involved</th>
<th>Other Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Dec.22</td>
<td>IPE, Friends of Nature and Green Beagle, etc.</td>
<td>Pacific Environment</td>
<td>Repeated its strong stance: &quot;Apple has a long-standing practice of not disclosing our supply base.&quot; “we could still not find a connection for Apple to drive corrective action.” Questioned the NGO how were they able to connect the illegal supplier to Apple and required more evidence.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Dec.23</td>
<td></td>
<td></td>
<td>Answered Apple’s correspondence and quoted a large volume of available public documents as a proof showing that Lian Jian Technology was a supplier of touchscreens to Apple.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jan.1</td>
<td></td>
<td></td>
<td>The employees of supplier: several poisoned employees of LJ Technology company wrote to Steve Jobs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jan.13</td>
<td></td>
<td></td>
<td>Apple once again said very clearly that: &quot;As we said in our previous responses, Apple has a long-standing practice of not disclosing our supply base.&quot;</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Jan.20</td>
<td>Issued IT Industry Investigative Report (Phase IV), Special Edition: Apple Inc. The Other Side of Apple.</td>
<td></td>
<td>The employees have still not received any reply from Apple Inc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fer.</td>
<td></td>
<td></td>
<td>CSR REPORT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>May.20</td>
<td></td>
<td></td>
<td>An explosion happened in its supplier’s factory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug.24</td>
<td></td>
<td></td>
<td>Tim Cook replaced Steve Jobs’s resignation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aug.25</td>
<td>IPE: made calls to several suppliers for expatiations were rejected</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2.2 Two Special Investigation Reports on Apple’s Supplier Social Responsibility Issue by Environmental NGOs in China


The NGO accused that Apple should not regard the suppliers’ information as commercially confidential data or a trade secret. The reveal of suppliers’ information would not threaten Apple's core technologies and unique competitions abilities. However, local communities were suffering from environmental deteriorations, and the employees were bearing risks of the physical injury. Compared to other global companies, Apple only indulged itself in evading accusations.

From three dimensions involving occupational safety, environmental protection and labor rights and dignity, the NGO illuminated the gigantic gap between commitments and practices of Apple’s CSR management of supply chain with concrete and detailed cases. (Table, 2)

On August 31st, IPE released the second investigation report on Apple, which was named *the other side of Apple II: pollution spread through Apple’s supply chain*. It revealed that nearly over 27 suspected suppliers to Apple once had environmental problems. “However, in the Apple’s supplier responsibility 2011 progress report published, where core violations were discovered from the 36 audits, not a single violation was based on environmental pollution.” A few days ahead of its report, on Aug. 25th, IPE contacted some suppliers asking for their detailed expatiations but was rejected.

On the second special report, the NGO coalitions illustrated the violations of CSR in the supply chain of Apple with 10 cases involved in 12 suspected suppliers. (Table 3)

Hours before the release of the second special report, Apple finally broke their silence and stated that not all the suppliers cited by the NGOs were suppliers to them.

---

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Suppliers Involved</th>
<th>Incidents Sketch</th>
</tr>
</thead>
</table>
| **Occupational Safety of Workers in Apple’s Supply Chain**   | 3                           | Lian Jian (Su Zhou) Technology: illegal use of toxic chemical solvents (n-hexane) in the productive process, which lead workers to be poisoned.  
Yu Han Technology (Su Zhou) Co., Ltd. unlawfully contracted out their cleaning work to Yun Heng Hardware & Electrical, which illegally used n-hexane for “degreasing” wiping task. The failure of the company to provide staff with effective individual protection equipment led to 8 employees successively suffering from suspected n-hexane occupational poisoning.  
Washida (Dong Guan): the Dongguan Health Bureau inspection group discovered that in July 2009, 234 Dongguan Washida employees who had a history of exposure to occupational hazards had occupational health checkups. At that time, it was discovered that 30 people needed re-examining; of which 8 had hearing loss and 8 had anemia. |
| **Environmental Protection in Apple’s Supply Chain**         | 5                           | Lian Jian Technology: unauthorized emission the hazardous waste material in the production process, which was fined by the local municipal environmental protection bureau.  
Fu Gang (Dongguan): violating the environmental regulations in the process of electroplating production and were listed as cases of major violations by the local environmental protection bureau.  
Washida (Dong Guan): excessive discharge of wastewater; Discharge contaminated wastewater below the legal standard.  
Sheng Yi (Dongguan): produces excessive amounts of hazardous waste and be complained by the resident due to exhaust gas nuisance  
Nan Bo Group: Exceed the emission standers of toxic waste gas, involving the subsidiary companies of Guangzhou, Shenzhen, Dongguan. |
| **Labor Rights and Dignity of Workers in Apple’s Supply Chain** | 3                           | Foxconn (Shen Zhen): largest suppliers of Apple Inc. in China, a string of worker suicides at Foxconn’s plants had been reported from 2009 to 2010.  
Washida (Dong Guan): In 2009, the company used internal management regulations to force workers to overtime work, which resulted in an employee strike.  
Da Fu (Chang Shu) Co. LTD.: Humiliate the dignity of female workers. The company required the female workers to undo their belts and submit to a body inspection when they left work under the public circumstances with male workers presence. |

(Source: IPE’s IT Industry Investigative Report (Phase IV). Arranged and translated by the author)
Table 3. CSR-Violations Suspected in the Supply Chain of the Apple Inc. in China Identified by the IPE

<table>
<thead>
<tr>
<th>Environment Contamination</th>
<th>Num.</th>
<th>Name of Supplier</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive Discharge</td>
<td>1</td>
<td>Guangzhou Meiko Electronics</td>
<td>Repeatedly exceeded authorized standards &amp; discharged through hidden pipes</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Wuhan Meiko Electronics</td>
<td>Large volumes of wastewater discharged into surrounding Rivers and Lakes</td>
</tr>
<tr>
<td>Jeopardize Community</td>
<td>3</td>
<td>Kaedar &amp; Unimicron</td>
<td>Wastewater discharged with high concentration and toxicity, affected citizens kneel &amp; ask for help</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Foxconn Taiyuan</td>
<td>Repeated complaints by residents on pollution emissions</td>
</tr>
<tr>
<td>Hazardous Waste</td>
<td>5</td>
<td>Ibiden Electronics (Beijing) Co., Ltd.</td>
<td>Conceal the record of industrial sludge containing heavy metals</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Shenzhen Hazardous Waste Treatment Station Co., Ltd.</td>
<td>Discharge seriously over the authorized standards</td>
</tr>
<tr>
<td>Pollution Records</td>
<td>7</td>
<td>Foxconn</td>
<td>Three factories with environmental violation problems</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Boardtek Computer (Suzhou) Co., Ltd. &amp; Casetek Computer (Suzhou) Co., Ltd.</td>
<td>Adopting methods to evade water pollutant discharge supervision</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Shenzhen Ai sheng Precision Circuit Technology Co., Ltd.</td>
<td>Discharging heavy metals in breach of the authorized standards</td>
</tr>
<tr>
<td>Personal Injury</td>
<td>10</td>
<td>Foxconn (Cheng Du)</td>
<td>The Blood Stained iPad2</td>
</tr>
</tbody>
</table>

(Source: IPE’s IT Industry Investigative Report (Phase Five), Arranged and translated by the author)
4.3 Communication after Breaking Silence

After the second special report, Apple gradually changed its attitudes with attempts to get in touch with the NGOs. IPE sketched out several rounds of communication among involved parties in the Sixth report.

4.3.1 Discussions: Intentionality Communication and Discussion Before Formal Conference.

On September 13th, 2011, Frances Beinecke, the president of Natural Resources Defense Council (NRDC) wrote to Apple CEO Tim Cook appealing to the giant company to note the allegations against its suppliers by Chinese NGOs. She conveyed that NRDC would be willing to work with Apple to remedy the situation and promoted a multi-party conference.

The international organization Natural Resources Defense Council (NRDC) is an international environmental organization established in 1970 and has branches in many locations around the globe. In the field of environmental protection and energy conservation, NRDC has significant social influences in both the United States and China. In the United States, NRDC helped write the U.S. Clean Air Act and subsequent amendments historically. In China, through collaborating with China central authorities like the National Development and Reform Commission or local NGOs, NRDC once initiated several environmentalprotecting projects. The earliest project was a demonstration project to encourage energy efficiency and cleaner production in the fertilizer industry in Chongqing in 1996. The organization had been working in China over two decades.

- In her four-page letter (which has not been released publicly), Beinecke set out four key requests from the NRDC and partner organization the IPE. First, Apple check its suppliers against China’s public databases of polluting companies. Second, Apple’s supply chain audits to extend beyond tier-one suppliers – the companies that actually assemble Apple products – to cover component

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86 On January 29th 2013, IPE covered its communicating progression with Apple Inc. in the Sixth follow-up report, which was named on a positive title “Apple Opens Up–IT Industry Supply Chain Investigative Report – Phase VI”.

manufacturers as well. Third, Apple should change its current procurement policy and make environmental pollution a “core violation”. And fourth, Apple include environmental performance as a key measure in supplier evaluations.\(^\text{48}\)

After receiving the letter, the vice president of Apple, who was in charge of sustainable development strategy, contacted with IPE and NRDC respectively. He took the initiative to call Linda Greer, who was a specialist studied toxic chemicals as well as the chief inspector of NRDC’s global program of environmental health, and expressed the intention of the first tripartite conference including IPE. NRDC and Apple. The vice president confirmed to IPE that Apple would verify the environmental performances of its suppliers according to previous reports and suggested an arrangement of a calling conference to step in communication.

Around September 14\(^\text{th}\), 2011, IPE (Ma Jun) and representatives of the Apple (China) held an initial meeting in Bei Jing, and the two sides agreed to establish a communication channel. A conference call hold between IPE and Apple Inc. on September 16th. All parties agreed to work towards protecting China’s environment. At the time, Apple refused to disclose detail contents of the conference publicly and requested the NGO summarized the meeting content into one sentence to the media.

After two rounds of consultation with the NGOs, Apple conducted the “Specialized Environmental Audits” in suppliers which checked the environmental facilities of 14 suppliers in China no-publicly.\(^\text{49}\) It authorized third-party environmental engineering companies, which accepted by the Green Choice Alliance NGOs, to conduct internal audits on the suppliers listed in the report. The site investigations included the environmental facilities of the supplier and records of the past three years regarding the hazardous waste. However, Apple rejected the requirement of the Chinese NGO to participate in and supervise the investigation.

During Sep. 23\(^\text{rd}\) to 24\(^\text{th}\), the first third-party environmental audit was conducted on Meiko (Wuhan), which was authorized by Apple and recognized by the NGOs. Meiko Electronics (Wuhan) is one of the most important suppliers of Apple. The company is an exclusively foreign-owned enterprise set up by Meiko (Japan) Company. In September, at the request of the Japanese Embassy and the client company, Meiko (Wuhan) carried out several rounds of communication with the NGOs coalition, IPE, and Friends of Nature (Wuhan).

At the end of September, Apple introduced the outcomes of environmental auditing conducted on the suppliers mentioned in NGOs’ reports on a joint conference in Bei Jing. NGOs argued Apple merely provided general statistics and requested more specific

\(^{48}\) Apple wakes up to Chinese pollution concerns: A Chinese-led campaign to clean up Apple’s supply chain is finally gaining traction, the guardian, First published on Tue. Oct 2011 Xie Xiaoping for China Dialogue, part of the Guardian Environment Network BST https://www.theguardian.com/environment/2011/oct/04/apple-chinese-pollution-concerns

details. However, Apple insisted on the rejection of the proposal of conducting the third-party audits under the supervision of Chinese NGOs.

On Sep. 26th, Ma Jun (the chief leader of IPE) had an informal meet with Apple’s senior executives responsible for supply chain management in American. They discussed technical feasibilities in making use of the China Pollution Map Database offered by IPE and Apple’s environmental auditing on suppliers.

4.3.2 Step into Formal Conference and Further Exchange

The first formal tripartite conference was held local time on October 31st, 2011 in the headquarter of Apple Inc. in the Unitized States Cupertino California. The participants included specialists from NRDC, representatives from Chinese NGOs alliance, and Apple’s top executives in group operating, government affairs and supply chain management of China. The intense discussions lasting up to five hours lead Apple acknowledged the needs for greater transparency in its supply chain. Some frank exchanges and heated discussions. A breakthrough comes at the end when Apple acknowledge that they need some transparency in their supply chain. In December, they reviewed the rectification in previously pilot project in Meiko (Wu Han).

In January 2012, Apple Inc. released the Supplier Responsibility Report. The report reflected Apple added the auditing of supplier’s environmental impacts to the supplier audit process. It promised to promote the environmental improvements in the supply chain by identifying the supplier that produce high-risk environmental impacts. Beyond that, it published a partial list of suppliers, began to work with Fair Labor Association (FLA) to audit issues related to workers’ rights in the supply chain and disclosed an explosion at a supplier’s factory in China due to a combustible dust explosion.

“These 156 companies account for more than 97 percent of what we pay to suppliers to manufacture our products.” (Apple Supplier Responsibility 2012 Progress Report)

On January 27th, 2012, the involved parties, NRDC, IPE, and Apple held a conference call again. Apple briefed NGOs on the progress that suppliers have made with corrective actions. However, NGOs argued that the internal auditing process lack of the public oversight and required to participate in monitoring the third-party audits, Apple management finally agreed to conduct the pilot project. They decided to launch pilot projects of third-party environmental auditing under the supervisions of local NGOs, selecting Meiko (Wuhan) and Ibiden Electronics (Beijing) (another Japanese-invested company) as pioneer enterprise.

Around April, progress made at another meeting attended by NRDC and IPE. Apple and the NGO started to not just talk about individual cases but looked at the bigger picture and explored ways of moving towards a proactive collaboration.
On April 26th, 2012, Apple conducted a trial third-party GCA audit with a supplier, Meiko Electronics (Wuhan) Co., Ltd., under the supervision of IPE and Friends of Nature Wuhan Group. After the review, the NGO verified the rectifications of the relevant factories and issued an investigation report regarding the to the public.

Around October, they held another meeting at Apple’s headquarters in Cupertino. “Owing to previous frequent communications over specific cases, the meeting goes smoothly. Apple and IPE begin to discuss how to tackle the key issues facing the IT industry and how this can be done.”

On Nov. 13th and 14th, the NGO supervised environmental auditing progress on another supplier Ibiden Electronics (Beijing) by an environmental auditing firm. Meanwhile, Apple impelled the supplier to accept some special audits on water management and the effectiveness of water conservation on IPE’s advice.

<table>
<thead>
<tr>
<th>Time</th>
<th>Communication Mode</th>
<th>Location</th>
<th>Participants</th>
<th>Stakeholder</th>
<th>Content</th>
<th>Outcome/Apple’s Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 Aug.31</td>
<td>Public Report</td>
<td></td>
<td>☆ ☆</td>
<td>NRDC</td>
<td>Release the second special report: “The Other Side of Apple it.”</td>
<td>Apple finally break their silence hours ahead of the release of the report: states that not all the suppliers cited by the NGOs are suppliers to them</td>
</tr>
<tr>
<td>2011 Sep.13</td>
<td>Email/Post</td>
<td></td>
<td>☆</td>
<td>NRDC</td>
<td>NRDC send letter to Apple CEO Tim Cook to bring the IPE report to his attention and request a meeting</td>
<td>Vice president of Apple contacted IPE and NRDC respectively. Confirmed intention of the first tripartite conference including IPE, NRDC and Apple. Expresed to IPE that Apple would verify the environmental performances of its suppliers. Suggested an arrangement of a calling conference.</td>
</tr>
<tr>
<td>2011 Sep.14</td>
<td>First conference</td>
<td>Formal</td>
<td>Peking ☆ ☆</td>
<td></td>
<td>The two sides agreed to establish a communication platform</td>
<td>Refused the NGO to disclose the content of the conference</td>
</tr>
<tr>
<td>2011 Sep.16</td>
<td>Coference call</td>
<td>Formal</td>
<td>☆ ☆</td>
<td></td>
<td>All parties agreed to work towards protecting China’s environment</td>
<td>Requested the NGO summarize the meeting in one sentence to the media</td>
</tr>
<tr>
<td>2011 Sep.</td>
<td>Formal consulting</td>
<td></td>
<td>☆</td>
<td>Wuhan Meiko Electronics ☆ Japan Embassy</td>
<td>At the request of the Japanese Embassy and the client company, Meiko (Wuhan) carried out several rounds of communication with the NGOs coalition</td>
<td>During Sep. 23rd to 24th, the first third-party environmental audit was conducted on Meiko (Wuhan), which was authorized by Apple and recognized by the NGOs</td>
</tr>
<tr>
<td>2011 Sep.23 &amp; 24</td>
<td>Field investigation</td>
<td></td>
<td>☆</td>
<td>☆ Supplies cited in report ☆ The third party auditing firm</td>
<td>Apple hire auditing firm recognized by the Green Choice Alliance NGOs and start to go through the cases cited in the NGO report on Apple’s supply chain</td>
<td>Apple Conduct internal audits on the suppliers listed in the report. The first third-party environmental audit without the supervision of the NGO</td>
</tr>
<tr>
<td>2011 Sep.26</td>
<td>Informal consulting</td>
<td></td>
<td>American ☆ ☆</td>
<td></td>
<td>The chief leader of IPE had an informal meet with Apple’s senior executives responsible for supply chain management</td>
<td>Discussed technical feasibilities in making use of the China Pollution Map Database and Apple’s environmental auditing to suppliers, etc.</td>
</tr>
<tr>
<td>2011 Oct.31</td>
<td>Conference</td>
<td>Formal</td>
<td>American ☆ ☆</td>
<td></td>
<td>Intense discussions were carried out Some frank exchanges and heated discussions</td>
<td>A breakthrough comes at the end when Apple acknowledge that they need some transparency in their supply chain</td>
</tr>
<tr>
<td>2011 Late Nov.</td>
<td>Conference</td>
<td>Formal</td>
<td>Peking ☆ ☆</td>
<td></td>
<td>Apple briefly introduced the outcomes of environmental auditing conducted on the suppliers mentioned in NGOs’ reports</td>
<td>Apple rejected the proposal of conducting the third-party audits under the supervision of NGOs. NGOs were not satisfied with the general statistics offered by Apple and requested more specifics.</td>
</tr>
<tr>
<td>2011 December</td>
<td></td>
<td></td>
<td>☆</td>
<td>Wuhan Meiko Electronics ☆ The third party auditing firm</td>
<td>The third-party audits were commissioned by Apple to follow up remediation of Meiko (Wuhan)</td>
<td></td>
</tr>
</tbody>
</table>
Table 4. Timeline to Dialogues between Apple and Chinese Environmental NGOs

<table>
<thead>
<tr>
<th>Time</th>
<th>Communication Mode</th>
<th>Location</th>
<th>Participants</th>
<th>Content</th>
<th>Outcome/Apple’s Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Jan 27</td>
<td>Conference call</td>
<td>Formal</td>
<td>Apple</td>
<td>Apple briefed the NGOs on the progress that suppliers have made with corrective actions. The NGOs further explained why it is essential for Apple suppliers to go through third-party audits.</td>
<td>They decided to launch pilot projects of third-party Green Environment Auditing under the supervision of NGOs and selected Meiko (Wuhan) and Zhen Electronics (Beijing) Co., Ltd. (another Japanese-invested company) as pioneer enterprises.</td>
</tr>
<tr>
<td>2012 Around April</td>
<td>Conference</td>
<td></td>
<td>Apple</td>
<td>Progress made at another meeting attended by NRDC and IPE.</td>
<td>Apple and the NGOs started to not just talk about individual cases but looked at the bigger picture and explored ways of moving towards a proactive collaboration.</td>
</tr>
<tr>
<td>2012 Apr 26</td>
<td>Conference</td>
<td></td>
<td>Apple</td>
<td>Apple conducted a trial third-party GCA audit with a supplier, Meiko Electronics (Wuhan) Co., Ltd., under the supervision of IPE and Friends of Nature Wuhan Group.</td>
<td></td>
</tr>
<tr>
<td>2012 Around October</td>
<td>Conference</td>
<td>Formal</td>
<td>Apple</td>
<td>Meeting at Apple’s headquarters in Cupertino. Owing to previous frequent communications over specific cases, the meeting goes smoothly.</td>
<td>Apple and IPE begin to discuss how to tackle the key issues facing the IT industry and how this can be done.</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td>Apple</td>
<td>The arrangement of third-party audit under the supervision of NGOs for another supplier Zhen Electronics (Beijing) was confirmed.</td>
<td>Apple impelled the supplier to accept some special audits on water management and the effectiveness of water conservation on IPE’s advice.</td>
</tr>
<tr>
<td>2012 Nov 13 &amp; 14</td>
<td>Conference</td>
<td></td>
<td>Apple</td>
<td>Strict and detailed inspections were conducted on the supplier by environment auditing firm with the NGO on the spot.</td>
<td>The two parties attempted to explore more possibilities for dealing with critical industry-wide problems like the excessive generation of hazardous waste and high-water consumption.</td>
</tr>
<tr>
<td>2012 Dec.</td>
<td></td>
<td></td>
<td>Apple</td>
<td>Apple promoted more GCA audits, removing the supplier’s violation records from the IPE’s database</td>
<td></td>
</tr>
</tbody>
</table>
4.4 Issue Mitigation: Regular Communication and Continuous problem improvement

After establishing communication with Chinese NGOs, Apple’s responsible performance on environmental issues in its supply chain was first reflected in urging suppliers with records of violations to rectify and eliminate the violation records in the database. Apple pushed suppliers to work with Chinese NGOs to conduct on-site assessments and develop corrective action plans. Moreover, Apple cooperated with Chinese NGOs to review the rectification of violators and carry out additional environmental reviews for high-risk suppliers in the supply chain.

In 2012, Apple conducted a critical environmental audit in 55 factories involved in high-risk environmental impacts, and 26 of the 55 facilities were recorded on IPE’s database. At the same time, Apple established the team of China Suppliers Responsible Environmental Health and Safety Project. (Apple, 2013)

The audits made Apple aware of the significance of involvement of Chinese NGOs in improving the supplier’s environmental performance, which pushed Apple to gradually broaden the cooperation scope with the IPE and promoted more environmental audits on suppliers.

In Apples’ supplier responsibility report released in early 2013, Apple Inc. made a commitment to improving the information transparency of the supply chain, expanding the publication of its vital supplier list to top 200 suppliers. Apple conducted the environmental performances audits of more than 520 environmental items of the top 200 suppliers, covering more than 400 locations in China, which found 114 violations at 58 factories, including environmental violation issues that had not been detected previously. It enumerated the major environmental violations in the supply chain and urged the suppliers to improve. (Apple, 2013)

In 2013, Apple set out to revise its supplier selection program, introducing the evaluation of the environmental impacts of 138 potential suppliers as a prerequisite for purchasing decisions.

In order to reduce water pollution in the supply chain, Apple locked the suppliers with large water consumption by the implementation of the Clean Water Program and strengthen the water management of suppliers. The program comprehensively evaluated wastewater management process of the supplier from such as water consumption, wastewater management, wastewater treatment and operation, maintenance, rainwater management, hazardous waste management, to reach the final discharge point. It guided
the supplier’s environmental performance by adding assessment results to the supplier scores system.

In 2014, Apple Corp expanded the number of factories involved in the project to 49. Since 2014, Apple has been promoting Pollutant Release and Transfer Register (PRTR) data from suppliers with high environmental risk.

Starting in 2015, Apple began to extend its management to the supply chain, actively exploring the environmental compliance of raw material suppliers and suppliers’ waste disposal companies, and responsible disposal of mobile phones after recycling. Environmental management experience, explore how to work together to promote the sharing of suppliers to achieve large-scale pollution reduction.

In April 2015, representatives of Apple, Microsoft, Huawei, Panasonic, Hitachi, Samsung, Canon, Toshiba, Ericsson, and other enterprises participated in the roundtable organized by IPE and shared the experience of brand management to explore industry solutions.

At this stage, the two parties attempted to explore more possibilities of dealing with critical industry-wide problems like the excessive generation of hazardous waste and high-water consumption.
Chapter 5. CASE ANAYLSIS

The evolution of the aforementioned case can be divided into four stages, which are issue emergence, issue expansion, issue reaction and issue mitigation according to Issue life cycle theory.

5.1. Analysis of the corresponding activities of Apple at each stage

A better issue cognition is an in-depth understanding of the social expectations, which serves as a push to enhance the management practices of CSR. In this section, we review the case with sorting out of the variations in Apple’s reactions and supply chain management policies related to NGO’s propositions. Then, we can understand the role of NGO both in deepening Apple’s understanding of social expectations and in promoting the issues cognition on SSCM. It is noteworthy that in the first two stages, Apple did not communicate with Chinese NGOs directly.

Organization cognition is a process in which an organization internalizes the ambiguities information. Through the issue cognition process, companies form the guidance to CSR management actions. Schütz (1943) described the process as being both a schema for expression and a schema for interpretation. As a schema for expression in the sense that it contains directives for action. It tells how to handle situations so that satisfactory results are obtained and undesirable consequences are minimized. A schema for interpretation means it contains reasonable results, in the process, it provides an “automatic” explanation of what people who act in certain ways are up to. Though this process, organization form relatively clear causal map of the event.

“Cognitive Schema” is a core concept of cognitive development theory proposed by Swiss psychologist Piaget (1926). He believed that cognition development is a process of construction in which individuals interact with the environment. The internal psychological structure of human is continually changing, and the so-called schema is the cognitive structure that people produce in order to cope with a particular situation.

This paper attempts to analyze the impact of communication with NGOs on Apple’s issues cognition. However, we cannot grasp the full process of sensemaking of Apple Inc.

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Schütz, A. (1943). The problem of rationality in the social world, Economica, New Series,10(38),130-149.
Therefore, this paper infers Apple’s issue cognitive relationship schema from analyses of the issue life cycle and Apple’s responses in different stages combining with existing theory, with a purpose to dynamically reflect the change process of Apple’ issue cognition. As the figure shows.

![Figure 19. Conceptual Framework of the Cognitive Relationship Schema](source: From the Author)

Therefore, we drew Apple’s cognitive relationship schema based on identifiable actions at each stage to reflect Apple’s cognition both on the issue and on the responsible relationship between itself and the stakeholders involved. The variation in cognition diagram can reflect the cognitive changes of Apple in the environmental issues in the supply chain. The following analysis reflects how the Chinese NGOs progressively affected Apple’s environmental responsibility in China’s supply chain.

- Issue emergence: NGOs pointed out the gap between corporate actions and commitments to CSR
- Issue expansion: Apple’s refusal and further investigation by NGOs
- Issue reaction: establishment of communication channels between Apple and NGOs
- Issue mitigation: establishment of bilateral cooperation and the deepening of relevant measures
5.1.1 Issue Emergence: NGOs Pointed Out the Gap between Corporate Actions and Commitments to CSR

Issue emergence is the initial stage of issue life cycle, characterized by the identification of the gap between corporate activities and social expectations on a specific issue.

Some social or environmental impacts arising from the actions of business organizations that have been neglected or previously invisible to the public have aroused social concerns due to the claims of positive groups or individuals in the society. The issue changes from invisible to explicit, sometimes in a specific name or goal, to reflect the social expectations and improvement requirements of the society on organizations' behaviors.

In the issues emergence stage, Chinese NGOs proposed environmental issues related to suppliers’ violations in the sustainable supply chain. NGOs viewed the gaps existed in the commitments and actions of many IT companies on environmental issues related to the supply chain in China. The environmental NGOs hoped issues of the green supply chain would attract the attention of MNCs to ameliorate violations caused by suppliers effectively.

(1) NGOs’ Actions and Requirements

Some IT multinational companies promised to be socially responsible and to achieve sustainability. However, MNCs did not monitor the environmental violations of suppliers in China effectively. Chinese NGOs argue that environmental pollutions caused by suppliers of IT industry threaten the sustainability of the local community in China, which betray values of sustainable development and principles of CSR.

IPE and other Chinese NGOs directly raised the environmental issues of the green supply chain to 29 globally renowned IT brands, requiring the target companies to respond to the suppliers’ environmental violations. IPE enumerated the grievous negative impacts on local communities resulted in the environmental pollutions in the supply chain and noted the default of IT industry in SSCM issues.

Furthermore, Chinese NGOs attempted to establish the communication channels with the target companies with the purpose of urging the MNCs to propel the suppliers to take environmental improvements in the way of public participation. The NGOs also advocated for IT companies to establish supply chain environmental management systems.

At the stage, Chinese Environmental NGOs identified the gap between corporate practices and commitments in the sustainable supply chain without taking a radical
approach. The significances of NGOs' actions to the issues cognition of individual companies are:

- Remind the gap in the commitments and actions of 29 multinational companies in the sustainable supply chain management.
- Express the social concerns on issues of the sustainable supply chain.

(2) Apple's Reactions to NGOs

Apple did not make responses to IPE and other Chinese environmental NGOs.

However, some companies in the IT industry answered timely to the NGOs, such as Sanyo, Hitachi, Panasonic, Sony, and Intel. Amid, Sanyo communicated with the environmental organizations with written explanations and verified the violations of suppliers involved. Panasonic not only confirmed the relevant suppliers, and the Director of Environmental Promotion Department of Panasonic China had direct communications with the NGOs on how to promote the solutions of the environmental violation of the suppliers.

Apple's nonresponse attitudes reflect its disparity with other organization industry in sustainable supply chain management.

(3) Apple's Commitments and Actions on Environmental Issue in the Supply Chain.

Apple pledged to adopt environmentally responsible manufacturing processes in the production of the products and listed the environmental impacts into its corporate supplier responsibility program. However, Apple had not publicly monitored or rectified the supplier's environmental violations before the NGOs raised questions.

① Apple was committed to adopting the highest standards in CSR and using environmentally responsible production processes. It also promised to require the supplier to achieve its audit standards of supplier responsibility and to abandon non-compliant suppliers.

"Apple is committed to the highest standard of social responsibility in everything we do. We are dedicated to ensuring that working conditions are safe, the environmental is protected, and employees are treated with respect and dignity wherever Apple products are made." "We expect all of our suppliers to adhere to the principles in our Supplier Code of Conduct and when we discover deficiencies we will require corrective actions with a focus on prevention and systemic solutions. In cases where a supplier’s efforts in this area do not meet our expectations, their contracts will be terminated."

(Supplier Responsibility 2007 Progress Report, 2007 February.)

"Apple is committed to ensuring the highest standards of social responsibility throughout our supply base. The companies we do business with must provide safe working conditions, treat workers with dignity and respect, and use environmentally
responsible manufacturing processes wherever Apple products are made."

(Supplier Responsibility 2010 Progress Report, 2010 February.)

② Defined the suppliers involved in its production process, named as the supply base, which includes the final assembly manufacturers, component suppliers, and related nonproduction providers. However, Apple kept the supplier’s information confidential. The supplier responsibility report did not disclose identifiable information on suppliers who violation its supplier’s code of conduct.

"Apple’s supply base • Final assembly manufacturers assemble the Mac, iPod, and iPhone. • Component suppliers manufacture parts and components, such as LCDs, hard drives, and printed circuit boards, from which finished Apple products are assembled. Component suppliers also manufacture Apple peripheral products, such as Time Capsule, the LED Cinema Display, and keyboards. • Nonproduction suppliers, such as office supply vendors and call centers, provide products and services that are not part of the Apple manufacturing process."

(Supplier Responsibility 2010 Progress Report, 2010 February.)

③ Apple's audit standards of supplier compliance are established with reference to EICC, a voluntary electronic industry standard, and International Labour Organization (ILO) primarily concerned with employee rights. However, the relevant standards only provide instructive requirements for the supplier’s environmental performance, which lacks explicit provisions on the applicable scope of the suppliers and mandatory requirements for rectifying the irregularities. There is no apparent reference to the environmental management standards in the supply chain, less emphasis on reference to relevant international environmental standards to guide management practices in the supply chain.

"Our Supplier Code of Conduct draws upon internationally recognized standards. It is similar to the Electronics Industry Code of Conduct (EICC), but goes beyond the EICC in key areas. For example, Apple’s Code recognizes the core conventions of the International Labor Organization (ILO) regarding the rights of workers to freely associate and collectively bargain. Our Code also prohibits medical testing that could be used in discriminatory ways and encourages companies to work with employees to identify and eliminate hazards and minimize the potential for workplace injuries."

(Supplier Responsibility 2008 Progress Report, 2008 February.)

④ No available approach for stakeholder engagement or public supervision on the social responsibility of suppliers. Apple took the supplier self-audit as the benchmark for evaluating the supplier environmental performance and conducted internal selective on-the-spot inspections to suppliers. The assessment of supplier’s environmental impacts was legal-compliance-oriented, and took corrective actions against the violations rather than prevent in advance.

“All Apple supplier facilities must be committed to reducing their environmental
impact. Consistent with legal requirements, facilities must hold up-to-date permits for air emissions, wastewater discharge, hazardous waste disposal, X-ray equipment, and boundary noise. We also direct each facility to comply with applicable laws requiring an analysis of the environmental impact of their facilities and operations. Apple required these facilities to conduct an environmental impact assessment of their entire facility and file it with the government for approval.” “We required these facilities to obtain permits and to communicate procedures for adhering to the conditions of the permits.”

(Supplier Responsibility 2010 Progress Report, 2010 February.)

(4) Stage Characteristics and Apple’s Cognitive Relationship Schema

At the issue emergence stage, Chinese NGOs point out the environmental problems of manufactures in the supply chain by proposing the potential supplier’s environmental violations. Apple did not respond to the proposition. Through its supply chain management initiatives, we infer Apple’s cognition on the supplier’s environmental issues.

① Commitment to an environmentally responsible production process demonstrates Apple is conscious of its responsibilities for the supplier’s environmental impact. However, the definition of the supplier base does not cover all potential environmental impacts in the production process. Therefore, in the cognitive relationship schema, Apple’s definition of the supplier base is represented by a dotted box.

② Secrecy of the supplier information impedes Apple from gaining feedback information on its environmental impacts and potential risks, thereby reducing its comprehensiveness of assessment on environmental issues in the supply chain. Apple’s environmental impacts involve all of the production processes of its products. However, its cognition on the issues was equivocal. Accordingly, we use the dotted box to show its supply chain.

③ Apple’s compliance requirement for suppliers indicates the company is aware of the mutual influence of the two sides on the environmental issues. However, the inadequacy of environmental management policy in the supply chain reflects its ambiguity on the interpretation of this relationship, so we use a dotted arrow line to represent its cognitive fuzziness on the interdependency.

④ Non-response to NGOs indicates that Apple does not realize the role of environmental NGOs nor does it intend to deepen its understanding on the expectations of the society on the issues in the supply chain. We infer that no cognitive connections between Apple and Chines NGOs, who are not considered as stakeholders on the related issues. Therefore, we use a dotted box to depict the Chinese environmental NGOs in the cognitive relationship schema of Apple.

We infer the cognitive relationship schema of Apple on the stage as Figure 20.
Figure 20. The Cognitive Relationship Schema of Apple on Environmental Issues of the Sustainable Supply Chain at the Stage of Issue Emergence
(Source: From the Author)

- **Solid line box**: Indicates that Apple has a clear cognition of the impact or role of the stakeholder on the issue.
- **Dotted box**: Indicates that Apple has cognitive fuzziness on the impact or role of the stakeholder on the issue.
- **Solid arrow line**: Indicates that Apple establishes a clear cognitive connection with the stakeholder on the issue.
- **Dotted arrow line**: Indicates that Apple establishes a fuzzy cognitive connection with the stakeholder on the issue.
- **The word in blue indicates that it is summarized from Apple’s self-evaluation in its report.**
- **The word in red indicates that it is summarized from IPE’s evaluation in its report.**

5.1.2. Issue Expansion: Apple’s refusal and further investigation by NGOs

Stakeholders would take measures to enhance social attention on the issue if their requirements did not receive sufficient attention from the business organization. The upsurge in social concern accompanying with more stakeholder involvement indicates that the issue has entered a period of expansion. At the stage, more stakeholders express their concerns and opinions on the issue.

Meanwhile, ongoing-increased social concern brings greater external pressures on the organization. Alleviating external pressures requires the organization to understand
social needs on the issue. Information exchange with stakeholders provides an organization with opportunities to understand the social requirements. On the contrary, the organization loses access to external feedback.

At this stage, more stakeholders and social groups noticed the environmental pollution of multinational IT brands in the supply chain. Due to the stark contrast to the attitudes of other companies, Apple’s denials and refusal responses gradually led Chinese NGOs to direct the spearhead at Apple. Mass media exposed more CSR-related scandals in Apple’s supply chain. Participation of international NGOs broaden the social awareness on the environmental issues in the supply chain, and some consumers expressed their protest against Apple’s policy in the supply chain.

Due to Apple’s rejection, the NGOs launched special investigations into Apple, calling on more social groups to put pressure on the company. Incessancy opposition from society increased the possibility of falling into a reputation crisis. Soaring social pressures forced Apple to adjust countermeasures to the environmental issue in the supply chain.

(1) NGOs’ Actions and Requirements

Chinese NGOs more clearly conveyed the idea of the green supply chain of IT industry in the following communication process with responded companies. NGOs feedbacked the status quo of supplier’s environmental violations to the companies and testified due to the complexity of OEM production mode in IT industry inadvertently covered the environmental violations of suppliers, which betray the values of social responsibility of the core company. They reminded the MNCs to readjust their environmental initiatives in the supply chain, proposed the responsible MNCs should encourage suppliers to take preventive measures, and suggested the need for public supervisions on environmental issues.

Chinese NGOs conducted a series of special investigations on Apple’s supply chain aimed at forcing the company to admit its accountability to the supplier’s violation. Two rounds of reports detailed Apple’s suspected suppliers’ environmental pollution cases to the public, listing more facts to demonstrate the gap between Apple’s commitment and action on social responsibility. The requirements for Apple including:

1. Respond to suppliers’ environmental violations and fulfill Apple’s commitment to environmental responsibility in CSR commitments. Support and work together with the public to mitigate the environmental impact in the supply chain.

2. Information disclosure. It is mainly to promote suppliers to disclose the information of environmental impact and assist the public in supervising the supplier’s environmental performance.

3. Determine environmental impacts of the production process and expand the scope of environmental assessment to upper-level suppliers. Apple’s definition of suppliers must cover the actual manufacturer of the product, which mean cover subcontractors who undertake production procedure that may cause severe environmental pollution.
④ Adjust environmental management initiatives in the supply chain. Apple should convey the sustainable idea in the supply chain and take preventive measures guiding suppliers to mitigate environmental impacts, including incorporate environmental standards into the supplier selection process, establish environmental management system in the supply chain, and urge the rectification of supplier.

(2) Apple’s Reactions to NGOs

Some MNCs embarked on verifying the relevant environmental violations of the supplier and urging corrective measures after communication with NGOs.

Meanwhile, Apple’s negative attitude lasted for about two years. In April, 2010, Chinese NGOs raised the issue to the IT industry. However, Apple did not make a substantive response to the environmental performance of its Chinese suppliers until August, 2011. During the period, Chinese NGOs tried to communicate with apple many times, but all were rebuffed. Apple took an evasive and defensive stance. During this period, Apple’s reactions mainly include:

① Apple partially responded to inquiries from NGOs based in American but declined to answer questions from Chinese NGOs.

② Apple rejected to respond directly to the environmental issues of the supply chain and refused to verify violations of potential suppliers publicly. When questions involving events related to potential suppliers, Apple responded in a roundabout way without acknowledging or denying the cases mentioned. Apple ignored the performance of other companies in the IT industry.

③ Apple declined to disclose supplier information and reiterated Apple’s business practices of keeping supplier information confidential. “Apple has a long-standing practice of not disclosing our supply base.”

④ Apple questioned the validity and credibility of the investigation of Chinese NGOs. Apple viewed that Chinese NGOs have no right to monitor and investigate environmental issues of Apple’s supply chain, and questioned the legitimacy of NGOs, like asking about investigation channels of NGOs.

(3) Changes of Apple on Environmental Issue in the Supply Chain

Apple adjusted attitudes towards supplier responsibility events related to employee safety, although it did not respond directly to requests from environmental NGOs.

① On the report of supplier responsibilities, Apple for the first time acknowledged and named supplier violations who led worker endangerment during the manufacturing process. Subcontractors of Apple’s suppliers mentioned in the report of NGOs were included in follow-up investigations.

② Apple adjusted the environmental related content of supplier code of conduct slightly, adding the compliance requirements on pollution production. Apple announced
the number of environmental noncompliance at supplier facilities and rectification requirements to suppliers after its internal review. However, Apple did not provide the content of these environmental violations and identifiable information of suppliers.

(4) Stage Characteristics and Apple's Cognitive Relationship Schema

At the stage of issue expansion, Apple did not improve the environmental policy of the supply chain substantially. Instead, the company faced more protests from society due to its refusal attitudes.

Apple's previous cognition on the environmental impacts of the production process accounts for its countermeasures on supplier issues of social responsibilities. One possible reason for insisting refuses is that Apple was yet unaware of essences of social requirements for the sustainable supply chain issues substantially. Besides, Apple cannot formulate the assessments reflecting the real social requirements due to lack of the communication channel with the society. Therefore, adjustments on the environmental management policy of the supply chain cannot mitigate the dissatisfaction from the society and solve the negative environmental impacts of the production process.

Accordingly, we infer Apple's cognition of environment-issues in supply chain as:

① Cognitive connections with suppliers. Negative attitude indicates that Apple had not established cognitive links with multi-level suppliers in the supply chain in its cognition of environmental issues.

② Cognitive connections with international NGOs. Selective responses to some NGOs that geographical located in American indicates Apple establish a cognitive connection with the international NGOs. Termination of responses indicates the ambiguity of the interrelations.

③ Cognitive connections with Chinese NGOs. Apple's rejection and questioning of Chinese NGOs suggest that no cognitive connections on the issues.

Accordingly, we infer the diagram of Apple's issue cognitive relationship schema on this stage.
Figure 21. The Cognitive Relationship Schema of Apple on Environmental Issues of the Sustainable Supply Chain at the Stage of Issue Expansion (Source: From the Author)

- **Solid line box**: Indicates that Apple has a clear cognition of the impact or role of the stakeholder on the issue.
- **Dotted box**: Indicates that Apple has cognitive fuzziness on the impact or role of the stakeholder on the issue.
- **Solid arrow line**: Indicates that Apple establishes a clear cognitive connection with the stakeholder on the issue.
- **Dotted arrow line**: Indicates that Apple establishes a fuzzy cognitive connection with the stakeholder on the issue.
- **The red line in the figure indicates Apple’s cognitive changes.**
- **The word in blue indicates that it is summarized from Apple’s self-evaluation in its report.**
- **The word in red indicates that it is summarized from IPE’s evaluation in its report.**

### 5.1.3 Issue Reaction: Establishment of Communication Channels between Apple and NGOs

With the increase of social criticism, the company threatened by a crisis take actions to cope with the issue. Communication brings feedback information that from social expectations on the company, which drive the business organizations to realize the existence of the issue. To mitigate this issue, organizations gradually accept social requirements and adjusts management initiatives on related issues.
Apple established the communication with IPE with the participation of an international NGO, NRDC.

(1) NGOs’ Actions and Requirements

Chinese NGOs suspended intense criticism of Apple after the company willing to established communication.

IPE conducted several rounds of communication with executives at Apple’s headquarters on environmental issues of the supply chain. The arguments mainly involve the scope of Apple’s environmental responsibility, implementation methods, public participation, and supplier information disclosure. In the communication process, the requirements of Chines NGOs mainly include :

1. Identify environmental violations of suppliers mentioned in the reports and verify the environmental impacts of the production process. Apple should conduct environmental audits of suppliers, which including environmental impacts advocated by environmental NGOs, and acknowledge that Apple’s deficiency of social responsibility on environmental issues in the supply chain.

2. Disclose identifiable supplier information to assist public supervision on supplier environment impacts.

3. Revise procurement policy and supplier code of conduct. Apple should incorporate environmental indicators into pre-selection process of potential suppliers. Apple should expand the scope of environmental assessment to upper-level suppliers in the supply chain, which at least identify the supplier that has a significant environmental impact in the production process.

4. Accept public supervision on the supplier rectification. Apple should establish an open supervision system on environmental issues of supplier social responsibility, which should include third-party audits under the supervision of Chinese NGOs. After Apple rejected the participation of NGOs, IPE promoted pilot projects to verify the feasibility of public supervision.

(2) Apple’s Reactions to NGOs

Apple reversed previous attitudes of denial and rejection. Senior executives of the headquarter discussed relevant issue with IPE and Apple began to respond to the environmental violation of supplier. However, Apple did not accept the proposition that makes the auditing process of supplier’ rectification public to NGOs.

1. Apple established direct communication with IPE. Apple established tripartite talks with IPE and NRDC and the communication process involved the participation of headquarters executives and industry experts. However, Apple disagreed to announce the contents of discussions initially.

2. Apple verified supplier environmental violations raised by IPE. Apple conducted
internal reviews of the supply chain, which cover environmental impacts of subcontractors proposed by NGOs.

③ Apple accepted proposals of IPE partially. First, Apple responded to cases of supplier pollutions. Second, Apple accepted the requirements to improve supply chain transparency disclosing supplier information, after the discussion with IPE. Thirdly, Apple accepted a pilot public-supervision program on corrections of supplier’s facilities.

④ Apple expressed its intentions to correct and prevent suppliers’ environmental issues and explored preliminary solutions to the issue with IPE.

(3) Changes of Apple on Environmental Issue in the Supply Chain

Apple adopted countermeasures for the requirements of IPE after discussions. At the stage, Apple mainly conducted internal corrective actions based on advocacies of IPE.

① Apple acknowledged environmental pollutions in its supply chain and urged suppliers to disclose rectification reports on environmental issues. After verifying the cases, Apple followed up the correction process for the violation cases of supplier pollution and urged suppliers to take timely corrective actions to revoke the environmental violation records.

② Apple unveiled information of key suppliers to improve supply chain transparency and assist the public supervision. Apple shifted its confidentiality attitude on supplier information, committing in acceptance of public supervision on the social responsibility of supply chain.

③ Apple conducted internal audits for suppliers’ environmental violations and noticed more environment impacts of production process beyond its previous definition. Apple expanded the audit scope of environmental impacts in the supply chain, and internal audit program covered the environmental impacts of the production process mentioned by NGOs.

④ Apple reexamined its auditing scope of suppliers. Under the suggestions of IPE, Apple embarked on identifying production links with high-risk environmental impacts, which include identifying potential subcontractors that undertake production processes that may cause serious environmental pollution.

(4) Stage Characteristics and Apple’s Cognitive Relationship Schema

Apple established communication with NGOs to ease criticisms and controversy on supplier environmental issues. Apple responded to supplier environmental violations and adopted corresponding measures to verify the environmental impacts of the production process according to proposals of NGOs.

Apple’s actions reflect its cognitive changes on environmental issues of supply chain. Accordingly, we can infer the cognitive changes as follows:
① Apple identified clear cognition connections between Apple and partial suppliers on the environmental issue. Acknowledging the cases of supplier environmental pollution indicates that Apple recognizes its responsibility for the supplier’s environmental impacts raised by NGOs. However, Apple’s responsive measures are limited to the cases pointed out by NGOs, which indicates that Apple does not explicitly identify the cognitive connections with multi-level suppliers in the supply chain on the environmental issues. Besides, Apple’s reexamination of environmental impacts indicates it gradually notice the social expectations. Therefore, we infer Apple form a vague cognition on addressing environmental issues in the supply chain.

② Apple identified clear the cognition connection between Apple and international NGOs. Apple established communication with Chinese NGOs through the NRDC, indicating that Apple recognizes the role of international NGOs and cooperation between NGOs on environmental issues in the supply chain. Therefore, we infer that a clear cognitive connection was established in Apple’s cognition.

③ Apple established a fuzzy cognitive connection between Apple and Chinese NGOs. Apple established tripartite talks with NGOs and verified IPE’s propositions, indicating that Apple viewed that Chinese NGOs play a role in relevant issues. However, Apple’s refusal to Chinese NGOs on supervising suppliers indicates cognitive ambiguity of this connection.

④ Senior executives of headquarter participated in the dialogue process. Apple published information on some key suppliers. All indicates that Apple clearly identified NGOs and key suppliers as stakeholders on environmental issues.
Figure 22. The Cognitive Relationship Schema of Apple on Environmental Issues of the Sustainable Supply Chain at the Stage of Issue Reaction  
(Source: From the Author)

- **Solid line box:** Indicates that Apple has a clear cognition of the impact or role of the stakeholder on the issue.
- **Dotted box:** Indicates that Apple has cognitive fuzziness on the impact or role of the stakeholder on the issue.
- **Solid arrow line:** Indicates that Apple establishes a clear cognitive connection with the stakeholder on the issue.
- **Dotted arrow line:** Indicates that Apple establishes a fuzzy cognitive connection with the stakeholder on the issue.
- **Red line in the figure indicates Apple’s cognitive changes.**
- **The word in blue indicates that it is summarized from Apple’s self-evaluation in its report.**
- **The word in “* blue” indicates it is summarized from Apple’s self-evaluations, which is admitted by IPE’s reports.**
5.1.4 Issue Mitigation: Establishment of Bilateral Cooperation and the Deepening of Relevant Measures

When companies realize the existence of gaps between actions and social expectations, responsible companies need to acquire how to adjust actions. Communication provides individual organizations with opportunities to understand social expectations. Response measures based on understanding social requirements can alleviate social criticism and dissatisfaction on issues of social responsibilities. Responsive actions reduce the controversy of the society toward the company, meanwhile, mitigated the issue.

After Apple established communications with IPE, environmental NGOs stopped attacking Apple on supplier’s social responsibilities. NGOs and Apple discussed the environmental issues and the scope of environmental impacts in the supply chain. Apple took steps to remedy defects of previous actions.

(1) NGOs’ Actions and Requirements

IPE’s attitudes towards Apple moved from criticism towards moderation. Through several rounds of communication, IPE urged Apple to confirm environmental performances of supplier in the production process in China. The proposition of IPE guided Apple to re-cognition the environmental impact of the supply chain.

① IPE stopped its aggressive investigations targeted against Apple. After confirming the rectifications of suppliers, IPE released a special report on Apple’s positive reactions, announcing Apple’s improvements and deficiencies in the supply chain to the public.

② IPE assessed environmental regulatory records of suppliers associated through information disclosed by Apple. IPE encouraged Apple to assist the supplier’s rectification after finding environment violations to mitigate environmental risk in the supply chain.

③ IPE persuaded Apple to accept third-party environmental auditing of suppliers under the participation of NGOs. During the auditing process, IPE advocated environmental impacts that had been neglected in the production process and uncovered environmental risks in Apple’s supply chain.

④ Chinese NGOs Alliance organized industry conferences of IT brands to explore industry standards on environmental issues of suppliers in China.

(2) Apple’s Reactions to NGOs

Apple established a partnership with IPE and responded positively to feedback from Chinese environmental NGOs on supplier environmental violations.

① Apple organized regular dialogues with IPE and accepted NGOs to participate in the auditing process of supplier rectifications.
② Apple participated in industry conferences organized by NGOs to discuss industry solutions on environmental issues in supply chain.

(3) Changes of Apple on Environmental Issue in the Supply Chain

Apple proceeded to take preventive measures to mitigate the environmental impacts in the supply chain, and no longer confined countermeasures to rectifying supplier irregularities.

① Apple responded positively to environmental violations identified by NGOs and partnered with IPE to strengthen routine supervision of supplier environmental impacts. Apple promoted suppliers to rectify by verifying supplier information in IPE’s database, which integrates environmental violations announced by the government.

② Apple expanded disclosure scope of the identifiable supplier information to cover the top 200 suppliers who account for more than 90% of Apple’s business. In terms of the number and scope of suppliers disclosed, Apple’s supply chain transparency is ahead of other companies in the IT industry.

③ Apple revised the standards of environmental responsibility in the supply chain and incorporated environmental standards into the pre-selection process for associated suppliers. In 2013, Apple revised its supplier selection plan to introduce an assessment of the environmental impacts of potential suppliers as a prerequisite for purchasing decisions.

④ Apple widened the responsive scope of environmental impacts caused by manufacturing process and promoted more environmental governance projects related to supplier environmental performance. Apple’s commitment to environmental impact reduction extends to its entire supply chain from sourcing of raw materials to manufacturing processes of product.

(4) Stage Characteristics and Apple’s Cognitive Relationship Schema

Apple established collaborative communication with Chinese environmental NGOs, engaging in continuous dialogue with IPE to discuss solutions for environmental issues in the supply chain. IPE persuaded Apple to conduct more appropriate responses, through which Apple discovered the environmental impacts previously neglected and realized deficiencies in the sustainable supply chain management process.

Recommendations of IPE inspired Apple to rethink standards and definitions of environmental management in the supply chain. Additionally, Apple adopts precautions to mitigate environmental impacts in the production process and covered its responsible commitment scope to the entire production process. Accordingly, we can infer Apple’s cognitive changes as follows:

① Apple established a clear cognitive connection with Chinese environmental NGOs. Cooperation with IPE indicates that Apple identified the role of Chinese environmental NGOs in supply chain environmental issues, and confirmed the cognitive connection.
② Apple established clear cognitive connections with multi-level suppliers in the supply chain. Apple extended its environmental management policies covering entire manufacturing processes of products indicates the establishment of cognitive connections.

③ Apple established clear cognitive connections between Chinese environmental NGOs and suppliers. Apple disclosed identifiable information of key suppliers and accepted the feedbacks from Chineses NGOs on supplier’s environmental violations. Positive responses indicate Apple admitted the role of NGOs in improving supplier’s environmental performance.

④ Apple clearly identified suppliers involved in production process of its products as stakeholders on environmental issues.

Figure 23. The Cognitive Relationship Schema of Apple on Environmental Issues of the Sustainable Supply Chain at the Stage of Issue Mitigation
(Source: From the Author)

- **Solid line box:** Indicates that Apple has a clear cognition of the impact or role of the stakeholder on the issue.
- **Dotted box:** Indicates that Apple has cognitive fuzziness on the impact or role of the stakeholder on the issue.
- **Solid arrow line:** Indicates that Apple establishes a clear cognitive connection with the stakeholder on the issue.
• **Dotted arrow line:** Indicates that Apple establishes a fuzzy cognitive connection with the stakeholder on the issue.
• **Red line in the figure indicates Apple’s cognitive changes.**
• **The word in blue indicates that it is summarized from Apple’s self-evaluation in its report.**
• **The word in red indicates that it is summarized from IPE’s evaluation in its report.**
• **The word in “* blue” indicates it is summarized from Apple’s self-evaluations, which is admitted by IPE’s reports.**

### 5.1.5 Brief Summary

Through the above analysis, we found that Apple underwent some changes both at the action and cognitive levels as the issue progressed.

The first is at the level of corporate behaviors. Apple changed its attitudes toward the environmental impacts of suppliers in operational activates. Apple’s response to environmental NGOs changed from refusals to active cooperation. Regarding the environmental impacts through the supply chain, the management measures of the company shifted from passive error correction to active prevention. Moreover, Apple disclosed the supplier information and accepted the public supervisions over the supply chain.

The second is at the cognitive level. Cognitive changes of Apple on environmental issues of the supply chain are embodied in the following dimensions:

1. Apple established more in-depth and broader definitions of supplier’s environmental impacts. Through the communication process, Apple achieves a deeper understanding of the environmental impacts of suppliers. Firstly, Apple enlarges its definition of the supply chain, which starts with the acquisition of raw materials and covers the subcontractors who undertake production procedures that may cause severe environmental pollutions. Secondly, Apple expanded the scope of environmental auditing of suppliers, and the environmental impacts of the production process proposed by NGOs were brought to light.

2. Redefine the implementation approach and realization path of the sustainable supply chain. Apple shifted from independently internal error correction to conducting joint-efforts with the society to monitor suppliers’ social responsibilities. Apple realized a collaborate path to the sustainable supply chain through collaboration with Chinese NGOs.

3. Apple adjusted and upgraded the corporate management concept of supplier environmental impacts. Apple adjusted the selection process of the potential suppliers systematically, incorporating the environmental criteria into its supplier assessments. New assessment criteria are proactive-oriented and incorporated more environmental
impacts that once neglected by previous policies of Apple.

4 Apple improved understanding of the role of public supervisions and identified more stakeholders associated with SSCM. From adhering to the confidentiality of supply chain to disclosure of identifiable supplier environmental information, Apple has promoted the supply chain transparency of IT industry.

Therefore, Apple not only alleviated the social pressure it faced but also broke through the previous cognitive limitation on the environmental impacts of the supply chain through the process of dialogue and communication with NGOs.

5.2 The Impact of Communication with NGOs on Organizational Issue Cognition Mechanism

In this section, we analyzed Apple’s transformation in operation mode of issue cognition mechanism to explain why its issue cognition changes.

Organizational learning is a process that is putting the cognitive outcomes into taking action. Organizational actions depend on information processing mechanisms of the external environment. The outcomes of organizational learning develop organizational knowledge of the external environment. (Daft et al. 1984)

Argiris (1977) regarded organizational learning is a process by which an organization corrects its inherent cognitive bias or knowing. He proposed the theory of organizational double-loop learning. If the learning process enables an organization to implement its current politics or achieve its objectives, then the process is single-loop learning. However, in the double-loop learning process, an organization not only be capable of identifying errors of knowing, but also question its potential policies and the procedures. Double-loop learning can help organizations break norms of organization presupposition.

The transformation of the operation mode of the issue cognition mechanism has changed the process of error correction, which realized the changes of organizational learning path on CSR issue. Therefore, Apple has changed approaches to sustainable supply chain management.

5.2.1 Organizational Learning Path

Argyris (1977) viewed the process of an organization to correct cognitive bias can reflect organizational learning path. An organization adapts itself to the external
environment through continuous organizational learning. “Organizational learning is a process of detecting and correcting an error. Also, the error is for our purposes any feature of knowledge or knowing that inhibits learning.” ⁹³ Here, purpose is not necessary objectives required by current policies, but fundamental purpose of the organization. He divided organizational learning paths into single-loop learning and double-loop learning.

Single-loop learning emphasizes rectify deviations of organizational actions under established goals, aiming at matching organizational behaviors with results. In single-loop learning, people presuppose the theoretical premise that conforms to their cognition. In an organization, the current norms reflect the theoretical premise. If people simply did not behave consistently with their own theories, then it might follow that the corrective action is to alter behavior. (Argyris,1997) Fuzzy information that is inconsistent with the objectives is discarded.

Single-loop learning is suitable for managing repetitive work in the organization and is a basic organization-learning type commonly used in productive and technical routine work. It helps to maintain the working order, but cannot achieve the effect of organizational improvement. Single-loop learning is instrumental learning, with a focus on action effectiveness and how to achieving existing goals and keeping organization performances within the established values and norms. In some cases, the process of rectifying deviations required reexaminations of the organization’s values and cognition on the issue, which inspires the process of double-loop learning. The process potentially camouflages the inherent cognitive loopholes and deep-seated problems.

An organization in double-loop learning path is capable of conducting comprehensive inquiry the underlying policies when taking corrective measures. Double-loop learning emphasizes the reexamination the essences of the problem. In the process of organizational learning, an organization not only seeks to improve outcomes but also ponders deeply over the essential causes of incurring problems.

The corrective actions of organizations in double learning loop are not limited to surface skin-surface aspects of the problem, but begin to question the status quo. Not all organizations can initiate the process of double-loop learning. Participation of senior management is the key to formation of learning process. Double-loop learning might facilitate the organization to solve problems fundamentally. Double-loop learning does not inhibit single-loop learning, but guiding the organization to become aware of new information.

Issue is a gap between public expectations and corporate behaviors. From the perspective of issue management theory, single-loop learning is suitable for issues that has been commonly identified as items and objectives of organizational CSR

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management. Single-loop learning reflects the internal management cycle of issue management of an individual organization. In the process of single-loop learning, a company sets the objectives of issue management cycle according to established cognitions on social expectations and evaluate the outcomes. The learning path is not conducive for an organization to break the cognitive limitation of social expectations. Without reflections on the cognitive insufficiency, company cannot explicitly identify the essential reasons of the emerging issues. Therefore, single-loop learning cannot alleviate the issue myopia of the organization on social expectations.

The issue management requires the organizational double-loop learning. The objective of issue management is to narrow the cognition gap between organizations and society. Issue management requires an organization to revise the standards and definitions of CSR that underestimates the social expectations, encourage the organization to change its learning path as shown in the figure 24.

![Issues learning Process (Double Loop)](image)

**Figure 24. Double loop Organizational Learning Process on CSR Issues**  
(Source: Adapted from Argyris,1977)

Changing organizational learning path on the CSR issues is realized through the transformation of issue cognition mechanism. Communications with Chinese NGOs affected organizational learning path and improved Apple’s performances in SSCM.

### 5.2.2 Operation Mode of Issue Cognition Mechanism before Communication:

**Monologue Mode of Issue Cognition and Single-Loop Learning Path**

Before establishing dialogues with NGOs, the operation mode of Apple’s issue cognition mechanism is an internal-oriented cycle, as an inward circulation that lack of new information conflicting with inherent cognition and stimulating Apple to narrow the cognition gaps. As a result, Apple is short of communication channel to narrow the cognitive gaps and social expectations. We named this internal-oriented mode of the
issue cognition mechanism as “Monologue Mode of Issue Cognition”, which is reflected in the following aspects.

Firstly, Apple faces a cognitive gap between society and itself in the sustainable supply chain management. In terms of Apple’s social responsibilities in the supply chain, social cognition is that Apple should take responsibility for the environmental violations of suppliers involved in the production process and fulfill the obligations of supervision and prevention. The initial advocacy of Chinese NGOs indicates social expectations of social responsibilities in the sustainable supply chain is that MNCs should take responsibility to prevent the environmental impacts related to the production process in China and assist the public to oversight the supplier’s environmental performances. However, as discussed in the previous chapter about Apple’s cognitive relationship schema 1, Apple’s cognition of social responsibilities in the supply chain is to correct the supplier’s environmental impacts under established environmental management policy.

Secondly, Apple’s failure to identify the cognition gaps affected its countermeasures in SSCM. Apple fell into the issue myopia and inadequately responded to social expectations. At this stage, the issue cognition process of Apple is an internal circulation without new information, due to the inherent issue cognition as a control criterion for information screening discards the information that disconfirmed to current policies and rules. The company maintained issue cognition due to the absence of communication with the society. However, the outcomes of issue management cycle of an individual organization under the instruction of this cognitive mechanism had already created a gap with social expectations.

In Monologue Mode of issue cognition, the company lack of willingness to stimulate “Enactment”. When the issue cognition cycle received the feedback information flow from the issue management cycle (Feedback 1), the inherent cognition determiner the standers of “Selection” and “Retention”. During the process, the issue cognition cycle rejected the controversial information that is inconsistent with the current cognition but reflects social requirements. Under the condition, issue management cycle of a company short of reasonable premises. As a result, outcomes of issue management cycle of an individual organization as feedback flow (Feedback 2) deliver to the macro issue life cycle and stimulate the social reactions.

Therefore, monologue mode circulation of issue cognition mechanism reflects the organizational single-loop learning path on CSR issues. The company mechanically conducted a CSR management process in the supply chain, without considering social expectations to narrow the cognitive gap. The company interprets and processes the issue related supplier’s environmental practices according to organizational objectives within the established management framework.
However, firstly, an organization in the single-loop learning path inability to bridge issue cognitive barriers and identify the cognitive gap implicit in the objectives, which is not conducive to mitigate issue myopia. Secondly, the organization’s issue cognition cannot effectively instruct the issue management process. Accordingly, the company is prone to refuse to respond or make insufficient reactions to controversial issues. When Chinese NGOs were appealing the IT industry to verify the status of the supplier’s environmental contaminations, Apple’s initial reactions and refusals of communication indicate that the company was in the process of single-loop learning. This situation is often interpreted as defensive resistance in organizational learning. The disadvantage of maintaining the single-loop learning widened the gap between Apple's behavior and the business community (Gap 2), which triggered controversy over Apple.

In summary, within this internal cycle of issue cognition mechanism, an individual organization cannot accurately identify the gap between its behaviors and social expectations with the single-loop learning path, which is not conducive to mitigating the organization’s insufficient issue cognition.
5.2.3 Operation Mode of Issue Cognitive Mechanism after Communication:
Dialogue Mode of Issue Cognition and Double-Loop Learning Path

After establishing dialogues with NGOs, the operation mode of Apple’s issue cognition mechanism shifted into a synergetic-oriented cycle. The information related to social expectations enters into the issue cognition cycle of Apple. Apple bridged the cognitive gap of an individual organization and mitigated the issue myopia. We named this synergetic-oriented mode of the issue cognition mechanism as “Dialogue mode of issue cognition”, which is reflected in the following aspects.

Firstly, Apple accessed to the information related to the cognitive gap through the communication. Chinese NGOs expressed the social expectations of the sustainable supply chain to Apple through continuous communication. Continues dialogue reflect Apple established channel to accept social cognition, which is conducive to Apple identify the gap of cognition.

Secondly, the transformation of cognitive mechanism promotes Apple’s countermeasures for environmental impacts of the supply chain. When adopting recommendations of NGOs, Apple formed more cognitive connections in cognition of environmental issues. As the paper discussed in Chapter 4, the Cognitive schema 3 and cognitive schema 4. Continuous communication with the NGOs is accompanied by continuous information exchange, which facilitates Apple to improve cognition on the social expectations. As for social responsibilities in the supply chain, Apple was no longer in the light of established environmental policies and management procedures but revised according to social expectations.

In Dialogue Mode of issue cognition, changes in the social environment stimulate the willingness of the organization to conduct issue cognition. The organization establishes communication channels for Enactment of new information. (Route 1, Route 2) New information flow is different from the organization’s previous cognitive retention and is integrated into the issue cognition cycle, including some was rejected due to cognitive conflict previously (Route 3). During the cognition process, the measurement criteria of screening feedback information have changed, so that Apple reconstructed the cognitive schema. Besides, Enactment and Selection of new information are still affected by previous organization Retention. (Feedback 3) Therefore, the improvement of issue cognition required a continuous circulation through the communication. Under the condition, the dynamic cognitive cycle brings more information to the organization. New information that helps narrow the cognitive gap is conveyed into the management cycle of an individual organization. Outcomes of issue management cycle of an individual organization as feedback flow (Feedback 2) deliver to the macro issue life cycle and mitigate the social reactions.
The Dialogue mode circulation of issue cognition mechanism facilitates transformation of organizational learning path. In Double-loop learning process, organization retrospect the fundamental causes incurring the problems, such as organizational values, strategies, or issue dealing mechanism. This learning path guides the organization to break through the limitation of cognition on issues and helps the company to achieve improvements.

Therefore, Apple's measures in supplier environmental impacts are no longer limited to established policies and programs but redefine the policies and definitions related to supply chain management.

In brief, In Dialogue Mode of issue cognition, Apple deepens its cognition on social expectations, which create the conditions for narrow the cognition gaps. An in-depth understanding of social expectation is the premise for the company to reconstruct their
 CSR behaviors, which is conducive to improve their CSR performance. Communication with NGOs stimulates the transformation of the operation mode of issues cognition cycle and inspires double-loop learning path. Ultimately, Apple mitigates the cognitive limitation on the social expectations.

5.3 Features of Issue Cognition Cycle

Through above analysis, some features reflect in the issue cognition mechanism of an individual organization.

1. Dynamic nature of issue cognition

Issue cognition of individual organizations is a dynamic process. Variations of CSR issues in life cycle increases the uncertainty of environment and bring more social pressure to the organization. To relief the ambiguities of information, organization constantly repeats its cognition process of the issue and perceives more information flow in a changing environment. Information accumulation in dynamic repetition enables organizations to form a deep understanding of the issue or gap. Environmental changes objectively motivate companies to interpret issues more deeply.

2. Individual Variations among Organizations

Perception is the premise of enactment. Organization merely enacts the information flow it can perceive. Perception diversification incurs the gaps across the businesses on issue cognition and issue management. In the field of CSR, “Issues” rest on social expectations of business organizations, rather than only rest on the business itself, as a result, perception is even more critical.

Meanwhile, the perception ability is up to diversified retentions within different organizations and correspondingly supporting mechanism. The issue cognition cycle is a connection and transfer point between the macro context of issue development and CSR management within individual companies. The enactment link is the interaction between a specific company and external environment, while the enactment is influenced by the internal cognitive factors of the company.

3. Feedback System

Both the cognitive process of the individual enterprises and the outcomes of the issue management cycle will become the feedback information flows and stimulate the development of the issue life cycle in the macro environment. Environmental changes once again lead to new rounds of cognitive processes for individual companies.
5.4 Summary

As mentioned earlier, Apple’s cognition on environmental issues of the sustainable supply chain has progressed as the variation of the issue life cycle, especially after communicating with Chinese environmental NGOs.

In this chapter, firstly, Apple’s cognitive relationship schemas are deduced according to Apple’s reactions in the supply chain and attitudes to Chinese NGOs, so as to analyze the cognitive changes of Apple. Secondly, from the perspective of a transformation of issue cognition mechanism, possible reasons for the changes of Apple’s cognitive relationship schemas analyzed in the previous section are explained.

Chinese environmental NGOs promoted variations occurred in the issue life cycle by arousing more social concerns and social awareness. Through analyzing Apple’s cognitive relationship schema corresponding in each stage, we found that inadequate responses of Apple on social expectations related to environmental issues in the supply chain was alleviated. More specifically, the establishment of communication and dialogue channels with environmental NGOs is conducive to achieve the alleviation of cognitive limitation.

Before communication and dialogues, Apple’s issue cognition is an “Monologue Mode of Issue Cognition”, which is an internal-oriented circulation of issue cognition and interprets the issue according to cognitive retentions inherent in the organization. This issue cognitive mode reflects single-loop learning path on CSR issues. However, Apple gradually transformed into the “Dialogue Mode of Issue Cognition” along with the communication and dialogues with NGOs. In the dialogue mode, Apple accepted the information related to social expectation, which stimulates Apple to reorganize its cognition on the issue and facilitate Apple to achieve Double-loop learning path.

Therefore, the variations in the issue cognition mechanism promote the changes occurred in Apple’s cognition reflected in the cognitive relationship schema. Communication and dialogue with NGOs facilitate the transformation of the operation mode of Apple’s issue cognition mechanism, breaking through cognitive limitation of individual organizations.

To sum up, the interaction process between Apple and Chinese environmental NGOs (represented by IPE), as well as transformations of Apple’s cognitive relationship schemas and learning path are illustrated in the table.
Table 5. Summary of Changes of Apple’s Issue Cognition  
(Source: From the Author)

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<tbody>
<tr>
<td>Issue Emergence</td>
<td>Propose the supplier’s environmental issue</td>
<td>Declines to respond, Indifference</td>
<td>Interpret issues based on previous cognition</td>
<td>Schema 1</td>
<td>Monologue Mode</td>
<td>Single loop learning</td>
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<tr>
<td>Issue Expansion</td>
<td>Increase social concerns of the environmental issue of the supply chain</td>
<td>Denial, Independent internal error correction</td>
<td>Internal circulation in the organizational cognitive retention</td>
<td>Schema 2</td>
<td></td>
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<tr>
<td>Issue Reaction</td>
<td>Continuous communication</td>
<td>Establish communication and dialogue, take responsive action</td>
<td>Access to new information and cognitive exploration</td>
<td>Schema 3</td>
<td>Dialogue Mode</td>
<td>Double loop learning</td>
</tr>
<tr>
<td>Issue Mitigation</td>
<td>Cooperation and supervision</td>
<td>Collaboration and joint action</td>
<td>Reflection, renewal of organizational issue cognition</td>
<td>Schema 4</td>
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Chapter 6. CONCLUSIONS AND FUTURE RESEARCH

In this chapter, the conclusions of this paper are summarized, the theoretical and practical implications of the conclusions of this paper are analyzed, and then the residual topics of this paper are discussed.

6.1 Summary of Former Chapters

The purpose of this study is to explore the issue cognition mechanism of an individual organization in the context of issue management theory. The research objectives are to answer the question “Why is there a gap between the MNCs’ actions and the society’s expectations in the Sustainable Supply Chain Management?” and “How to explain the role of Non-Government Organizations in the Sustainable Supply Chain Management of Multinational Corporations?”

Theoretical analysis and case study were conducted with a combination of existing theories and practical cases in order to solve the research objectives proposed. Also, we supplemented the deficiencies in previous theoretical studies of issue management theory.

Initially, theoretical reviews were carried out to probe into and review previous studies. Moreover, for verifying the potential existence of an issue cognition mechanism of an individual organization and exploring factors influencing this mechanism, a detailed case study was conducted.

- Chapter 1

Chapter 1 is the introduction of the study. Chapter 1 stated the background, the basis, the significance and the objectives for the research, and the methods mean we used in the research.

CSR essentially reflects various expectations of society to business organizations. Meanwhile, issue management theory regards an issue as a gap between social expectations and corporate actions. NGOs, as external stakeholders of business organizations, express social concerns for a certain phenomenon to the business community. MNCs encounter diversified social expectations due to their business characteristics, especially in terms of SSCM, the diversity of social, economic and environmental issues often makes the social responsibilities of MNCs prone to falling into social controversies and business criticisms. Previous issue management theory suggests that an individual company may under-respond to the diversification of issues related to social responsibilities due to lack of understanding or cognition of social expectations. However, the existing issue management theory has not fully discussed the issue
cognition mechanism that triggers an organization narrowly estimate or perceive the social expectations, or provided possible solutions for issue myopia.

- **Chapter 2**

Chapter 2 is a theoretical review. Chapter 2 expounded the theoretical basis of the study and provided preconditions for further theoretical expansion.

**Section 2.1**

The first section briefly introduced the research and concepts related to CSR and SSCM. SSCM issues involved the economic, social and environmental issues in the supply chain, which reflected the challenges of CSR faced by MNCs in supply chain management. Suppliers are important stakeholders for business organization, and the stakeholders of suppliers are also identified as the stakeholders of the MNCs. Therefore, the supplier’s CSR affects the social responsibilities of the MNC as the core in the supply chain.

**Section 2.2**

The second section sorted out the theory of sensemaking and enactment from the perspective of organizational cognition theory. Sensemaking and enactment theory are the meta-theories to study the organizational process. In the theoretical category, the interaction between organization and the environment affects the organization’s cognition. Organizational cognitive is a continuous process, and the organizational cognitive mechanism determines the behavioral choices of organizations. Enactment theory emphasizes the subjective consciousness and initiative in the cognitive process without ignoring the role of external environmental stimuli. Some scholars have paid attention to the dynamic process of CSR-cognition construction that implied in the interaction process of business and society. Communication is the channel for the organization to perceive the external environment, and the importance of communication to organizational sensemaking has been highlighted in the enactment theory. However, the role of communication in the process of organizational sensemaking has not been adequately discussed in the CSR field.

**Section 2.3**

The third section elaborated the issue management theory from different theoretical levels. First, the definition of an issue is discussed. In the study, we adopted the definition from the Issue Management Council. An issue is a gap between an organization’s actions and stakeholder expectations. Moreover, Issue management is the process used to close that gap. Second, the discussion was conducted according to two theoretical levels of issue management theory. At the macro level, we outlined the researches on issue life cycle with emphases of interaction trajectory between the business community and society. At the individual level, the issue management theory was reviewed, and the theoretical premises was analyzed. Thirdly, we discussed the issue myopia theory related to the cognitive process of issue transformation from the macro to the individual level and pointed out the theoretical deficiencies in previous researches on the issue cognition
mechanism of an individual organization.

- **Chapter 3**

Chapter 3 is the theoretical conception and deduction. Chapter 3 proposed the theoretical deduction on the issue cognition cycle and put forward a model of issue cognition mechanism.

**Section 3.1**

The first section proposed the premise of the theoretical conception and deduction in the study.

Firstly, the significances of Issue Management for MNCs’ SSCM were discussed. Understanding social diversity expectations are of essences for the responsible business organization. Meanwhile, social expectations involved in supply chain are complicated especially for multinational companies whose suppliers located throughout the world. MNCs need to understand the social expectation under different backgrounds. Because of issue management theory is oriented by social expectations, process-oriented and prospective, and different analytical levels of issue management theory are instrumental in coping with the complexity of social expectations. Therefore, we argue that issue management theory is of great significance for MNCs to cope with diversified social expectations in the construction of the sustainable supply chain.

Secondly, we analyzed necessities of exploring issue cognition mechanism of individual organizations. Firstly, previous studies have proposed the potential adverse effects on CSR practices caused by insufficient issue cognition, but without clarifying the cognitive mechanisms that lead to the phenomenon. Secondly, enactment theory on organizational cognition enlightens us to discuss the issue cognition mechanism of an individual organization. Thirdly, factors that impact the issue cognition mechanism of an individual organization need to be explored. Finally, performances of some MNCs in the construction of the sustainable supply chain is criticized by society.

Therefore, the significance of discussing the issue cognition mechanism of an individual business organization were demonstrated form the practical and theoretical perspective.

**Section 3.2**

The second section proposed the model of issue cognition cycle, for illuminating the potential existence of an issue cognition mechanism of an individual organization.

First, we discussed gaps between the issue cognition of an individual organization and social expectations taking the issue management theory as the theoretical context. An issue stems from a gap between practices of business organizations and the social expectations Therefore, Issue Management is also the management of the cognition gap, which aims to bridge the cognitive gap between the business communities and the society. The cognitive gaps exist not only between social expectations and perceptions of
the business community but also between perceptions of business organizations and the perception of an individual organization. Due to negligence of cognitive gaps in past issue management theory, individual organizations ignore to seek proper approaches to break the cognitive limitation on social expectation. The cognitive gaps led to a diversified response within the business community and the dilemma of individual companies in dealing with social responsibility issues. Therefore, this section discussed the possible impacts of issue cognition mechanism on the social responsible activities of individual organizations.

Second, we proposed the theoretical deduction on issue cognition mechanism. Combined with enactment theory, we viewed the process of issue cognition includes the following dimensions. First, environmental changes that stimulate an organization to conduct issue cognition process encouraging the individual organization to perceive the social expectation. Second, issue cognition process of an individual organization, through which an organization interpret the issue and form the instructions for the management process. Third, feedbacks from the issue management cycle, the issue cognition instructs the issue management process, serving as implied corporate values and standers that determine countermeasures for social expectations.

Third, a model of issue cognition cycle is introduced in this section. In the model, the whole theoretical process of issue management from macro level to individual level was divided into three interlocked cycles. The cycle starts with the emergence of the cognitive gap between businesses and society in the issue life cycle, and ends with social expectations were internalized by an individual organization as issue management objectives.

Section 3.3

The third section is on case selection of the study. Backgrounds and significance of the case are analyzed.

The case study reflected the issue recognition mechanism of individual organizations by deeply analyzing the issue cognition of an individual organization at different stages according to the issue life cycle. The case selected in our study is on the interaction process between Chinese environmental NGOs (represented by IPE) and Apple Inc. on the environmental issues of Apple's suppliers in China. Theoretically, a changing process of Apple's issue cognition can be discussed and studied. In practice, the case reflects the typical environmental issues in the SSCM of MNCs. Apple has a significant influence on the construction of the sustainable supply chain in China. The case indicates the role of NGOs, which are established in the developing countries, in promoting the sustainable supply chain.

- Chapter 4

Chapter 4 is the case statement. Chapter 4 presented the interaction process between Apple and China's environmental NGOs (represented by IPE) on environmental issues in sustainable supply chain management of the IT industry according to issue life cycle
theory.

**Section 4.1**

At the stage of issue emergence, Chinese environmental NGOs proposed environmental issues related to suppliers' violations in the supply chain of IT industry and urged some well-known IT brands to respond. Many brands responded, but Apple declined to answer questions from NGOs. Besides, Apple's policy on supplier responsibility before the incident was stated.

**Section 4.2**

At the stage of issue expansion, due to Apple's rejection of answering the initiatives on IT industry from the alliance of Chinese environmental NGOs, IPE and other NGOs launched two successive special investigations on Apple's supplier social responsibilities. The irregularities of suppliers led to more social concerns over Apple's supply chain.

**Section 4.3**

At the stage of issue reaction, Apple broke uncommunicative attitude and conducted several rounds of communication with NGOs and embarked on taking measures to deal with environmental issues identified by NGOs in the supply chain.

**Section 4.4**

At the stage of issue mitigation, Apple established continuous communication channels and partnerships with Chinese NGOs. Apple began to continuously improve environmental issues in the supply chain and promoted industry cooperation.

- **Chapter 5**

Chapter 5 is the case analysis. Chapter 5 carried on two parts of analysis on the case.

**Section 5.1**

The first section is the discussion of cognitive changes of Apple's Issue cognition, to verify the existence of an issue cognition mechanism of an individual organization.

We depicted Apple's "cognitive relationship schema" based on identifiable actions at each stage to reflect Apple's cognition both on the issue and on the responsible relationship between itself and the stakeholders involved. The variation in cognition diagram reflected the cognitive changes of Apple in the environmental issues in the supply chain.

We found that Apple underwent some changes both at the action and cognitive levels as the issue progressed.

The first is at the level of corporate behaviors. Apple changed its attitudes toward the environmental impacts of suppliers in operational activates. Apple's response to
environmental NGOs changed from refusals to active cooperation. Regarding the environmental impacts through the supply chain, the management measures of the company shifted from passive error correction to active prevention. Moreover, Apple disclosed the supplier information and accepted the public supervisions over the supply chain.

The second is at the cognitive level. Cognitive changes of Apple on environmental issues of the supply chain are embodied in the following dimensions. Apple established more in-depth and broader definitions of supplier’s environmental impacts. Apple redefined the implementation approach and realization path of the sustainable supply chain. Apple shifted from independently internal error correction to conducting joint-efforts with the society to monitor suppliers’ social responsibilities. Apple adjusted and upgraded the corporate management concept of supplier environmental impacts. Apple improved understanding of the role of public supervisions and identified more stakeholders associated with SSCM.

Therefore, Apple not only alleviated the social pressure it faced but also broke through the previous cognitive limitation on the environmental impacts of the supply chain through the dialogues and communication with NGOs.

**Section 5.2**

The second section is the discussion on the operational mode of the issue cognition mechanism.

Combined with the issue cognitive model put forward in the previous part, the possible reasons for the change of Apple’s issue cognition are explained from the perspective of the transformation of issue cognition mechanism.

We identified two operational modes of the issue cognition mechanism. The internal-oriented mode of the issue cognition mechanism is named as the Monologue Mode of Issue Cognition. The synergetic-oriented mode of the issue cognition mechanism is named as the Dialogue mode of issue cognition.

Before communication and dialogues, Apple’s issue cognition is the Monologue Mode of Issue Cognition, which interprets the issue according to cognitive retentions inherent in the organization. This issue cognitive mode reflects single-loop learning path on CSR issues. However, Apple gradually transformed into the Dialogue Mode of Issue Cognition along with the communication and dialogues with NGOs. In the dialogue mode, Apple accepted the information related to social expectation, which stimulates Apple to reorganize its cognition on the issue and facilitate Apple to achieve Double-loop learning path.

Therefore, the variations in the issue cognition mechanism promote the changes occurred in Apple’s cognition reflected in the cognitive relationship schema. Communication and dialogue with NGOs facilitate the transformation of the operation mode of Apple’s issue cognition mechanism, breaking through cognitive limitation of individual organizations.
Section 5.3

The third section proposed some features reflecting in the issue cognition mechanism of an individual organization including dynamic nature of issue cognition, Individual Variations among Organizations and the feedback System stimulate the development of the issue life cycle in the macro environment.

Section 5.4

The fourth section is a brief summary for the above discussion.

The section summed up that the variations in the issue cognition mechanism promote the changes occurred in Apple's cognition reflected in the cognitive relationship schema. Communication and dialogue with NGOs facilitate the transformation of the operation mode of Apple’s issue cognition mechanism, breaking through the cognitive limitation of individual organizations.

6.2 Conclusions

From the theoretical context of issue management, the study probed into the Sustainable Supply Chain Management (SSCM) of Multinational Corporations (MNCs) under the supervision of Non-Government Organizations (NGOs), to answer why there is a gap between the MNCs’ actions and the society’s expectations in the SSCM, and to explain the role of NGOs in the SSCM of MNCs. Through the above analysis, the following conclusions are drawn in this study:

Firstly, a cognitive barrier for an individual organization in CSR issues caused a gap raised between a gap between the MNCs’ actions and the society’s expectations in the SSCM. SSCM covers multiple CSR-issues in the supply chain of MNC, and varieties of ever emerging issues reflect a complication degree of social expectations on responsibly business activities of MNCs. From the perspective of issue management theory, an individual company cannot comprehensively perceive all of the social expectations due to a cognitive limitation of individual organizations. The proper identification of social expectation is the premise for decent activities of issue management. Otherwise, an inadequate understanding of social expectations results in a narrow estimate of all potential issues that should be addressed. Cognitive barriers impacted the issue cognition of an individual organization, resulting in insufficient countermeasures of social expectations.

Secondly, issue cognition mechanism is a fundamental cause of determining issue cognition of an individual organization. Under the influence of issue cognition mechanism, individual organizations form different cognitions of social expectations. Issue cognition mechanism of an individual organization determines its cognitive degree on issues occurring in the macro environment. Within the business community, internalization
process of issues from the macro level to the individual level impacts the interaction process between business and society. Bridging the gap between corporate actions and social expectations of CSR requires breakthrough the cognitive barriers of individual organizations on issues occurred in the external environment. An individual organization who neglects the cognitive limitation is prone to fall into inadequate responsiveness to various social expectations.

Thirdly, issue cognition mechanism has different operation modes, which directs organizational practices of issue management at the level of individual organizations. What determines issue cognition of individual organization is whether its cognitive mechanism has a communication channel with external environment. Dialogue and communication with stakeholders bring new information that differs from the inherent cognition of an organization and stimulates the new process of issue cognition. Cognitive improvement is a prerequisite to conduct effectively issue management of individual organizations, whereas dialogues with stakeholders stimulate the issue cognition. Communication with stakeholders not only mitigates potential social criticism but also provides an individual organization with opportunities to circumvent the cognition limitations.

Finally, NGOs serves as the information channel facilitating organizations to perceive potential social expectations and are conducive to mitigate the cognitive limitation of an individual business organization. Communication and dialogue with stakeholders such as NGOs provide a more reasonable premise for socially responsible activities. NGOs are conducive to mitigate the underreaction of MNCs to diversified social expectations in the establishment of the sustainable supply chain, thereby improving CSR behaviors.
6.3 Contributions and Implications

Issue management theory studies the reactive process of business organization to social issues, aiming at promoting organizations to take proactive activities that bridge the gap between social expectations and corporate actions. (Palese et al., 2002; Heath, 2008) Previous studies in the field can be divided into two theoretical levels. (Wood, 1991, Koyama, 2011) When exploring the developmental trajectory of an issue, scholars focused on discussing the interaction process between the whole business community and society, such as issue life cycle theory. (Downs, 1972, Ackerman et al., 1976, Post, 1978, Carroll, 2015) Therefore, the research level was positioned in the macro perspective of the business community and society. (Max, 1986, Lamertz, 2003, Koyama, 2011) As the research level turned into an individual organization, issue management was reckoned as an internal managerial process of individual organizations to actively respond to multiple issues, such as issue management cycle theory. (Chase, 1977, Johnson, 1983, Hainsworth et al., 1988, Lawrence et al., 2008, 2014, Heath, 2008) In previous studies, the issue cognition of an individual organization was presupposed as a spontaneous occurrence that happened sooner or later. (Heath, 2008, Koyama, 2011) This implicit presupposition leads to insufficient discussions on issue cognition mechanism. Issue myopia described the cognitive limitation faced by an organization on issue cognition, and essentially reflects a narrow cognition of a company on diversified social expectations. (Koyama, 2011) Individual organizations are impacted by cognitive difficulties in identifying issues that needed to be addressed. However, the internal cause leading to insufficient cognition of social expectations by individual organizations have not been fully explored. Therefore, the research made some theoretical and practical contributions by exploring the mechanism that determines the issue cognition of individual organizations, which is as follows:

First of all, the study carried out a unique and original study on the issue cognition mechanism of an individual organization under the theoretical context of issue management theory. This research has enriched the theoretical studies on the issue management by focusing on the transformation process from social issues to corporate issues under the context of issue management theory. (Deephouse, 2009) We creatively proposed a cognitive mechanism of issue cognition for individual organizations and viewed the cognitive mechanism as a fundamental cause of issue cognition. Issue cognition mechanism determines individual organizations’ reactions to various issues occurring in the external environment. By proposing the issue cognition mechanism, we provided a theoretical basis for analyzing the cognitive limitations of individual organizations on social expectations. This research deepened studies of issue management theory to the level of organizational cognition and deconstructed possible impacts of issue cognition on issue management practices of a business organization from the perspective of individual organizational cognition. The proposition of issue cognition mechanism is constructive to more further studies on individual organizations’ cognitive limitations in identifying social expectations and is helpful to discover the root cause of various reactions to social expectations by individual organizations.
Secondly, a theoretical model was proposed to analyze the issue cognition mechanism. Combined with enactment theory, we identified three interlocked cycles in the issue cognition mechanism. (Weick, 1979, Hoffman, 2001) Organizational cognition is a process of interpreting the uncertain information flow that generated from the external environment. External changes providing equivocal information flow to the organization, and the organization forms an interpretation of the environment through its perceived information flow. (Ocasio, 1997, Taylor et al., 2000, Weick, 2005) Limitations on information perception blocked organizational cognition and different interpretation patterns are generated in the process of organizational cognition. (Simon, 1947) Our model proves that transforming the cognitive mechanism is a prerequisite to improving issue cognition of individual organizations. Rather than focusing on the different responsive process of a company on various issues, we have highlighted the cognition process of an emerging issue within the business community, which equals to an internalization process on social expectations from macro to the individual within the whole business community. The original model of the study provided a reference for analyzing the issue cognition mechanism of an individual organization and for future research on the field of issue management theory.

Thirdly, through the case study, the possible operation modes of the issue cognition mechanism were discussed, and the impacts of stakeholder communication on issue cognition mechanism of individual organizations were proposed. (Carter, 2011, Weiss, 2014) We focused on the externally driving force that stimulates issue cognition of individual organizations. (Hoffman, 2001) By focusing on the communication process with NGOs, this study emphasized the importance of stakeholder engagement for issue management of individual organizations. Most previous studies on the temporal dynamics of social activists’ impacts on CSR focused on the industry level, and were lack of actual evidence offering a direct connection (Hoffman, 1999, Reid et al., 2009). We contributed to analyzing changes of issue cognition of an individual organization with times series and advanced the research on how activist groups such as NGOs spur organizational practices and organizational policies on social issues by providing a practical case of individual company level. We enriched the studies on how the social groups established in unique social ideology context stimulate the CSR practices. (Den Hond et al., 2007)

At last, from the perspective of practical dimension, this study verified the impacts of NGO’s participation and supervision on the environmental issues in the sustainable supply chain of MNCs, especially the role of NGOs that established in developing countries. (Seuring, 2008, Carter, 2011, Carroll, 2015) In addition, NGOs can use this study as a reference to identify the cognitive limitation of the target companies and adopt adaptive measures to build dialogues with MNCs and promote the development of CSR. (Andersen, 2009, Koyama, 2011)
6.4 Research limitation and Future Research

This study has made some theoretical and practical contributions. However, like any research, this study has some limitation and deficiencies, and we recommend them as future research directions.

First, the SSCM of MNCs is a term covering various issues of social responsibilities in the supply chain, such as economic, environmental, and social issues. The case selected in this study focalized the environmental issue and discussed in detail. Meanwhile, economic issues and social issues in SSCM are also worthy of further discussion and exploration. For one thing, a comprehensive study of relevant issues of supplier social responsibility is conducive to supplement the theoretical framework of this paper further. On the other hand, social concerns about labor rights issues of supplier’s employee have continued to rise, especially in China, Japan other Asian regions. Given the political sensitivity of related issues in different regions, the role of NGO supervision or criticisms in social issues of the supply chain needs further discussion. Therefore, future researches will be extended to economic and social issues related to the social responsibility of suppliers.

Secondly, this study benefited from the transparency of relevant information, which makes a systematical and detailed case study on the events is workable. However, an in-depth study of cognitive mechanisms is inseparable from the exploration of internal factors that affect organizational cognition. In future research, we will obtain more information through interviews to support studies on internal cognitive factors affecting cognitive mechanism, which will help to elaborate and supplement the theoretical framework of this paper.

Thirdly, the initial design of this research was to explore the impacts of issue cognition mechanism on the communication process between NGOs and MNCs by conducting comparative studies on the different responses from multiple MNCs to the NGO’s supervision on the supply chain. For this research idea, the detailed case analysis of this paper has achieved fruitful results, but it also leaves room for future research. Firstly, for the comparative studies, difficulty on information availability impedes us to further comparative studies at the current stage, due to the diversity in the corporate values on CSR and information transparency. Second, in view of the differences of support policies for NGOs in different regions, we will conduct more case studies in the future to enrich and deepen the theoretical framework of this research.
REFERENCES


Schütz, A. (1943). The problem of rationality in the social world, Economica, New Series, 10(38), 130-149.


Weick, K.E. (1979). The social psychology of organizing, (2ed), Addison-Wesley, Reading, MA.


(https://www.iso.org/home.html)


(https://www.apple.com/supplier-responsibility/)


