

Multinational Companies' (MNC's) Implementation of Sustainable Supply Chain Management in Chinese Subsidiaries: A.P. Moller - Maersk's Experience

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Abstract

This paper studies what factors may facilitate or hinder the implementation of Sustainable Supply Chain Management (SSCM) in multinational companies' (MNC's) Chinese subsidiaries by focusing on two factors, (i) the Chinese subsidiaries' absorptive capacity¹, and (ii) institutional factors. A case study is conducted in a Danish based MNC, A.P. Moller - Maersk. The conclusion is that absorptive capacity facilitated the implementation of SSCM, while the institutional factors hinder the implementation of SSCM.

Introduction

The discussion of Corporate Social Responsibility (CSR) started in the middle of 20th century (Bowen, 1953). People's understanding of CSR has been evolving with time: entrepreneurs used to consider that if they did philanthropy, they were responsible to the society. Later on, Hopkins (2006) argued that philanthropy is just an easy give away of the money. Today, the scope of corporations' social responsibilities is expanded to take a multitude of expectations of a great number of stakeholders into account. With many stakeholders being increasingly concerned about larger society and the environment, this will in turn affect the extent of the corporate responsibilities in these areas (Carroll, 2009).

Seeking greater economic competitive advantages, many companies have outsourced the production to developing countries. China, due to its abundant working force and cheap raw material resources, has attracted many foreign companies, and is known as the 'factory of the world' (Harney, 2008). When celebrating the economic benefits that globalization has brought, many business people overlooked the bad working conditions and negative impact on the environment. Since the 1990s, media, NGOs and other stakeholders have heavily criticized the foreign buyers, especially those who boast that they are responsible to the society (Thottam, 2005). A company can never call itself socially responsible if it purchases products or services from suppliers who run their business unethically (Editorial, 2008). Stakeholders require corporations, who boast that they are responsible or sustainable, to be accountable for their suppliers' practices. A new trend of Sustainable Supply Chain Management (SSCM) has started (Seuring, 2008). Sustainable Supply Chain management

¹Absorptive capacity is a company's ability to recognize, assimilate, transform, and exploit new external knowledge (Cohen et al, 1990).

means that the buyers will manage not only the quality and price of the product, but also the suppliers' social and environmental impact (Seuring, 2008).

However, SSCM is a complex task, because the MNCs do not have so much experience with it, and the social and environmental risk from the suppliers' side is difficult to manage if the transparency of the supply chain is poor. Apple, who has run their SSCM for many years, is still facing CSR risks in the supply chain due to their suppliers' bad CSR performance. The performance of both Apple and its suppliers is under the media and NGO's magnifying glass. When China Labor Watch (2010) blamed Foxconn, a main supplier of Apple, of adopting irresponsible business practices, their customers, such as Apple, also became the target of critics (LEE, 2010). It seems that Apple's SSCM failed in the Foxconn case. Generally, SSCM, as a new management practice, is not mature yet. Companies are searching for good management practices to prevent the failure.

A.P. Moller - Maersk, Starbucks, H&M, Hewlett-Packard and many others have started implementing their SSCM (BSR, 2011). Some companies use the same model for implementing SSCM, which is integrating the sustainability into the procurement function. The combination of sustainability and procurement functions is important in order to ensure that suppliers receive consistent information from the buyers (BSR, 2007). If these two functions are separate, it is very likely that the suppliers receive instruction from the buyers about price, quality, and lead-time, but on the other hand, receive social and environmental oriented instruction from the CSR department. This model is suitable for the big MNCs because the scale and location of the suppliers makes it difficult for the CSR department to monitor all the suppliers.

Although some MNCs have been conducting SSCM practices for more than a decade, little literature addresses SSCM on the operational level (Seuring, 2008). There is little discussion on how an MNC can manage a sustainable supply chain by integrating sustainability into procurement functions. How would the buyers, whose Key Performance Indicators (KPIs) have been traditionally focused on cost and quality, learn to apply the CSR requirements towards the suppliers? How would the MNC manage its suppliers in different countries, where culture and institutions vary?

This paper discusses what factors may facilitate or hinder the implementation of SSCM in Multinational Companies. More specifically, the paper will focus on the western-based MNC's implementation of SSCM in Chinese subsidiaries by focusing on two factors, (i) the Chinese subsidiaries' absorptive capacity, and (ii) institutional factors.

Literature Review

SSCM and Absorptive Capacity

SSCM is defined as the management of material and information flows among companies throughout the supply chain, and the goal of the management is to realize sustainable development (Seuring, 2008). It means that when a company starts SSCM, they will manage their suppliers' negative impact on society and environment. The focal company will focus not only on the quality and price of the product, but also in the production facility how this

product was produced, how the workers were treated, what materials are used, how the waste is treated, etc.

By far, most CSR researches are carried out in Europe and US (Dobers et al., 2009). However, compared with the developed countries, there are more social and environmental crises in the developing countries (WRI, 2005; UNDP, 2006). Moreover, with the globalization, business activities are likely to have profound impacts on the society and environment of the developing countries (World Bank, 2006). Therefore, it is necessary to gain more knowledge on how to uplift the CSR practices of the corporations in those countries. SSCM is a suitable model for addressing the CSR issues in developing countries. The general opinion is that MNCs that have the ability to influence its suppliers and customers in the entire supply chain, can expand their CSR standards and best practices to the developing countries by SSCM (Côté et al 2008).

As Chopra and colleagues (2010) pointed out, the core purpose of a supply chain is not the blind pursuit of cheap labor and cheap raw material resources. On one hand, this kind of advantage is short-term, because in the open market, any competitor can join the market and use the same labor and materials. On the other hand, if the price advantage is gained at the sacrifice of environment or people's well-being, once the unethical operation is revealed to the public, it is very likely that the reputation and image of that company will be affected. From the term SSCM, we can see that it is the management of the sustainability of the supply chain. The traditional supply chain focuses on product quality, lead-time, distribution, etc. Now the new mode of supply management takes the supplier's practices into consideration. SSCM is about increasing transparency through the supply chain, establishing long-term partnership with the supplier and increasing the supply chain competitive advantage by raising awareness of and eliminating bad practices.

Concerning MNC's huge number of suppliers, the sustainable supply chain management cannot be done by one or two CSR experts in the company, not even the CSR or sustainability department, but has to involve the whole procurement function, i.e. the buyers (BSR, 2008). In order to achieve an effective sustainable supply chain management, sustainability should be one of the goals of the company, which means that the same importance level should be given to sustainability as quality and competitive pricing when making business decisions (BSR, 2008). The company structure should integrate sustainability into the procurement functions, or build the procurement function's own capability for responsible procurement.

However, in the traditional corporation model, usually the sustainability function and the procurement function are separate. The buyers do not necessarily know how the sustainability function works. They are not well equipped with CSR knowledge, so it is very challenging for the buyers if they are asked to manage their suppliers' CSR practices (BSR, 2010). Building the buyers capability of SSCM becomes the core task at the early stage of SSCM implementation. Once the buyers have a thorough understanding of CSR and SSCM, they will be able to communicate their CSR knowledge to the suppliers. The suppliers may be reluctant to cooperate, so ideally the buyers should also be trained to tackle such situations.

To what extent the subsidiaries can absorb the knowledge relates to their absorptive capacity. Absorptive capacity is a companies' ability to recognize, assimilate, transform, and exploit new external knowledge (Cohen et al, 1990). A company's prior knowledge and related practices largely influence their absorptive capacity (Cohen et al, 1990). What kind of new knowledge and practices are prone to be absorbed also depends on the firm's prior knowledge. The firm is more likely to absorb the new practices, which they can see the value of based on the previous practices (Lenox, 2004). Contrary, it will be difficult if one intends to persuade a firm to adopt a brand new practice, and asks the firm to invest time and money in it, if the firm has no related prior knowledge.

On the basis of above, the first hypothesis is raised here:

Hypothesis 1: Corporation Absorptive Capacity facilitates the implementation of SSCM.

In the following chapters, we analyze the Chinese subsidiaries' absorptive capacity by analyzing the subsidiaries' capacity of acquisition, assimilation, transformation and exploitation of knowledge from its previous health safety and environment (HSE) programs. There are two reasons for choosing the HSE program to study the organization's absorptive capacity: (1) HSE is not a part of the core business such as sales and procurement, neither is SSCM, and (2) HSE knowledge is related to SSCM, organizations' prior knowledge and practices on HSE may facilitate the implementation of SSCM (Cohen et al, 1990).

SSCM and Institutional Factors in China

Institutional theory is widely applied to study the adoption and diffusion of strategy among organizations. (Abrahamson, 1991; DiMaggio & Powell, 1983; Scott, 1995) Institutional theory points out those organizations sharing the same institutional environment will adopt similar practices (Scott, 1995). However, the cultural and regulative elements of the institutional environment vary across nations (Rosenzweig & Singh, 1991), so the practices adopted vary across nations.

Looking into MNC's implementation of SSCM in China in an institutional perspective, one can easily highlight the institutional complexity. First of all, in terms of CSR, the Chinese subsidiaries are in a different institutional environment than the HQ in Western Countries (Blowfield, 2005). Secondly, different from internal CSR strategy, implementing the SSCM involves not only the focal company, but also its suppliers. The suppliers may be in a different institutional environment from the MNC's Chinese subsidiaries and MNC HQ's suppliers.

The Chinese government has started encourage companies in China to conduct CSR. Chinese State-owned Assets Supervision and Administration Commission of the State Council (SASAC) released Guideline on Fulfilling Social Responsibility by Central State-owned Enterprises (Central SOEs) in 2007. The Central SOEs are managed directly by the central Chinese government. Their first obligation is to fulfill the instruction of the Chinese government. Although the guideline was not compulsory, most Central SOEs started their CSR program according to the guideline. In 2011, SASAC made it compulsory that all Central SOEs shall release their Sustainability Report by the end of 2012 (SASAC, 2011).

On the local level, some cities such as Shanghai, Hangzhou, Shenzhen, Shandong, etc., also have regulations on CSR. These regulations take all the local companies into scope, including SOEs, private companies, foreign invested companies, joint venture, etc. Shanghai Pudong government has released a CSR standard, which applies to companies within Pudong District. This CSR standard is not compulsory for the companies. According to the Pudong government regulation, if the companies can meet the standard, they can get incentives including becoming preferred supplier for government purchasing, shortened process time for imported goods custom checking, and etc. (Pudong CSR website, 2011). In 2011, the Pudong CSR standard has been accepted by the Shanghai government, which means the standard is now applied to all the companies in Shanghai.

In such regulation environment, we argue that the Chinese companies are more aware of CSR. Therefore, when MNC expand their CSR requirements to the suppliers, the suppliers will understand it, and welcome it in order to meet the requirements from both the customer and government. According to above discussion, we propose that:

Hypothesis 2a: The regulative factor facilitates the MNC to implement SSCM in Chinese subsidiaries.

The Chinese national level regulation has only forced the Central SOEs to release a CSR report. The CSR is still a voluntary activity for most companies. Therefore, the normative and cognitive environment still influences the implementation of SSCM.

The normative factor decides whether the buyers will view the SSCM as consistent with the local context. Dimaggio & Powell (1983) mentioned that firms prefer imitating business peers' shared frames to minimize the uncertainty in the organizational environment. For the majority of the companies in China, SSCM is a relatively new practice in some industries. Chinese companies are still working on uplifting their own CSR practices. The supplier's CSR practice is usually out of the company's scope. In such normative environment, the buyers, who enforce extra CSR requirements to the suppliers, may be considered as trouble maker. If the buyer also has this concern, he may conclude that the cultural cognitive environment is not favorable, and as a result he will withhold the implementation of SSCM.

We argue that if the buyer thinks that the supplier is in an unfavorable normative environment for implementing CSR, the buyer will have low proactively to implement the SSCM, so the implementation of the strategy will be delayed or even denied. According to above, we propose that:

Hypothesis 2b: The unfavorable normative factors hinder the MNC to implement SSCM in Chinese subsidiaries.

The CSR related cultural-cognitive environment in China is influenced by the Confucianism. Confucianism advocates that a man must practice moral excellence rightly in a confined ethical code. In such cultural environment, the individuals are supposed to have ethical behavior at their hearts. The Confucianism belief influences not only the individuals, but also the businesses. The businesses in China have a long history of doing philanthropy (Lam, 2003). Therefore, the Chinese companies have already realized that they are responsible to the society to some extent. CSR is consistent with the local culture. In such context, we

argue that when the MNC implementing SSCM in their Chinese subsidiaries, the employees will quickly understand the value of SSCM, and develop positive attitude toward SSCM. According to above, we propose that

Hypothesis 2c: The favorable CSR cultural-cognitive factor in China facilitates the MNC's implementation of SSCM in Chinese subsidiaries.

Method

Case Study

An embedded exploratory case study is conducted in order to find out what factors may facilitate or hinder the implementation of SSCM in MNC's Chinese subsidiaries. The case study is carried out according to Yin's (2009) model for conducting a case study.

Research Settings

Concerning case selection, we want to find an MNC which:

- Is headquartered in US or Europe,
- has subsidiaries and procurement function in China,
- has implemented HSE or CSR strategy in Chinese subsidiaries,
- has Chinese buyers and suppliers,
- has started Sustainable Supply Chain Strategy not long ago,
- has transferred the knowledge of how to implement Sustainable Supply Chain Strategy to Chinese subsidiaries, and
- the researcher has the opportunity and convenience to get access to the setting and the phenomena of interest (Jorgensen, 1989).

We want to find such an MNC because it can provide opportunity to analyze their absorptive capacity by analyzing their HSE or CSR program implementation. The data is for analyzing the first hypothesis. Second, the buyers in its Chinese subsidiaries have been trained on SSCM, their point view toward SSCM and the institutional environment in China is important data for us to analyze the second hypothesis.

We have identified that A.P. Moller - Maersk (for easy reference termed "Maersk") is a suitable case for this study.

Maersk is a worldwide conglomerate, with 110,000 employees operating in about 130 countries. Maersk's business units are operating in a wide range of activities in energy, logistics, retail, and manufacturing industries (Maersk, 2011a). Several business units, such as Maersk Line, Maersk Container Industry (MCI), DAMCO, etc., have subsidiaries in China.

Maersk started the SSCM Program in 2009. In Maersk, the SSCM program is called Responsible Procurement. The program aims to integrate sustainability into procurement functions (Maersk, 2011b). Because of the type of business, Maersk has more than 100,000 suppliers in over 130 countries, and due to their market leading position in a number of

industries, it is generally assumed that MNCs like Maersk have the ability to influence and thereby also improve its suppliers' sustainability performance.

However, implementing a global all-encompassing SSCM is a challenge for such a conglomerate. In Maersk, millions of purchasing decisions are made each year, and a large share of these decisions is made locally (Maersk, 2011b). As indicated previously, Responsible Procurement can be done neither by one or two experts, nor by just the Sustainability department. Therefore, Maersk has decided to integrate sustainability into its procurement function.

At present, a Maersk team responsible for implementing Responsible Procurement is founded in the Group Function in Denmark (for easy reference termed "RP team"). The RP team sets up targets and provides the whole group with knowledge and tools on how to implement Responsible Procurement throughout the various business units.

At the beginning of 2011, the RP team developed a 45-minute eLearning course to enable the worldwide training of all employees with buying responsibilities in the same standardized message. The eLearning course introduced the basic knowledge of SSCM, the reason why SSCM is important to the group, buyers' role and responsibility in this, and how to implement the SSCM. The eLearning course is taught in English. The global users are supposed to use the same course to get knowledge on SSCM. The course has been assigned to the Chinese buyers through Maersk internal learning management system.

By the end of June 2011, seven face-to-face training sessions has been held in Copenhagen, Qingdao and Shanghai. Each training session lasted one and a half day. Totally 33 buyers in the Maersk Chinese subsidiaries has been trained. In addition to the knowledge in eLearning, the face-to-face training gives more detailed information on SSCM.

In conclusion, Maersk is a suitable MNC for this research, because Maersk:

- is headquartered in Denmark,
- has major subsidiaries in several Chinese cities, such as Shanghai, Qingdao, Xiamen, Dong guan, and Chengdu,
- has the internal HSE and CSR program as a part of the group Sustainability Strategy 2010-2015
- has Chinese buyers and suppliers,
- has started Sustainable Supply Chain Management, which is called Responsible Procurement, and
- the researcher is working in the RP team.

Data Collection

Data Collection – Absorptive Capacity

The data related to absorptive capacity are collected from different sources. This includes documentation, participation and observation in day-to-day management, interviews with buyers participating in the training programs.

Documentation

Documents released by Maersk are studied. The documents include Maersk website, Maersk Sustainability Report, Maersk Third Party Code of Conduct, eLearning User Report, Train-the-Trainer course report.

Participant Observation

The researcher has a part-time job in Maersk RP team. The researcher's key job tasks include developing training material, coordinating the Chinese buyer's implementation of RP, assisting with day-to-day management of the RP program. The researcher also attended three sessions of face-to-face training in China.

Interview

The measurement of Absorptive Capacity is based on *Scales and Items of Potential and Realized Absorptive Capacity* (Jansen et al, 2005). 14 items are included in the interview questions (See Table 3 on page 17) to describe knowledge acquisition (four items), assimilation (three items), transformation (four items), and exploitation (three items).

A structured interview is conducted with 4 employees in Maersk China subsidiaries (See Table 4 on page 19). Among these 4 employees, 2 of them are Health Safety Security & Environment (HSSE) managers, 2 are buyers but also take responsible of the implementation of Maersk Sustainability Strategy.

Data Collection – Institutional Factors

The data related to institutional factors are collected from sources including documentation, interviews with external stakeholders, and a survey among Maersk employees.

Interview

To gather a full picture on the institutional factors in China from different perspectives, interviews have been conducted with 5 interviewees (See Table 4 on page 19) from different fields, including government officers, professors, and researchers from consulting company. An officer, Hui Qin Xiao, from Shanghai Pudong District Office for CSR System Establishing is interviewed. The officer gives an overview of the regulatory environment on the city level. The second interview is En Zhang, post doctor from Chinese Academy of Social Sciences, CSR Research Center. This is the only national wide research center in China. En Zhang gives an overview of the regulatory environment on the national level. Professor Zhen from Xiamen University and researchers from two consulting companies are also interviewed. They give a detailed picture of the regulatory factors in China.

Survey

The institutional measures for the cognitive, and normative dimensions anchored in CSR management are developed according to Kostova and Roth (2002) institutional profile measures for quality management. The survey questions are shown in Table 2 (page 16). The measures are statements, which describe the favorable cognitive and normative environment for CSR. The favorable environment means that the SSCM is consistent with the local context: CSR is what people should do, and what people are doing. Using a five-point Likert item, respondents were asked to rate the extent to which they agree with the

statement. A survey is sent to Maersk employees sitting in different departments, including marketing and sales, HR, Finance, etc. Totally 100 invitation was sent, and 79 responses are received.

Data Analysis

Based on the interviews with 4 employees of Maersk Chinese subsidiaries, we find that these subsidiaries have absorptive capacity.

Maersk Chinese subsidiaries have a good capacity for **knowledge acquisition**. They constantly acquire new knowledge from the HQ, from different departments, and also from external sources. When Maersk HQ released the Sustainability Strategy 2010 to 2015, the strategy was fast and well communicated to the Chinese subsidiaries. Health & Safety and Climate & Environment are two parts of the strategy. The subsidiaries' Health Safety Security and Environment (HSSE) managers strongly interact with the HQ to acquire new knowledge to better implement the strategy. The HQ also releases a monthly newsletter² and a quarterly newsletter³ to the whole group. Taking Climate & Environment strategy implementation as an example (He, 2011), the Maersk Line Chinese subsidiaries started their CO₂ reduction program on the local level, but they found it was difficult to calculate the carbon emission. Therefore, they contacted the HQ. HQ suggested them to contact a consulting company, from where the Chinese subsidiary got the solution. We can also see that the Chinese subsidiaries not only acquire HSSE knowledge from the HQ, but also external sources, which are considered very important sources of knowledge (Ge, 2011; He, 2011; Liu, 2011). Min Ge, the HSSE manager in Damco, said,

'I am a member of an HSE association. This association provides both online and offline platforms for HSSE managers from various companies to share their knowledge. It is really a useful platform. Usually, in a very short time after I post a question on the online platform, I will receive the answer with all the supporting documents.'

Moreover, all the interviewees agree that they often collect HSSE information through informal means, which is usually during lunch and dinner. Henry He, the HSSE manager in Maersk Line PRE, said,

'It is very common that we discuss problems during the lunch or dinner, it is part of our Chinese culture.'

In addition, the interaction among different subsidiaries is also strong. Different subsidiaries constantly communicate with each other to share problems and best practices (He, 2011; Liu 2011). Moreover, there are frequent interactions among different departments in one subsidiary. As Yanyan Zhao, buyer from MCI, mentioned,

'When MCI started implementing ISO 14001 standard, one employee from the HSE department, and one from the procurement department, along with Maersk Group

²The Monthly Sustainability Pulse, released monthly.

³Sustainability Radar, released quarterly.

level ISO experts, and auditors from a consulting company, attended the whole process of standard implementation. The employees from different department, including Finance, Sales, HR, Procurement, etc, actively enrolled and shared their ideas on how to improve their environmental performances.'

Maersk Chinese subsidiaries have good capacity for **knowledge assimilation**. The Chinese subsidiaries can quickly recognize shifts in the market. All the interviewees consider that Maersk's sustainability performance is either better or at least at the same level as their competitors in China, because they quickly recognized that the market became more demanding on the company's sustainability performance, and Maersk started its sustainability strategy in time. The Chinese subsidiaries quickly understood the opportunity to serve the existing customers in a better way and attracted more sustainability-oriented customers. *Nerissa Liu, HSSE Manager and buyer in Maersk Line PRN, said*

'According to Maersk's study, 70% of our clients think the environment protection is important. 41% said they would consider this aspect when choosing suppliers. The opportunity is very obvious for us if we implement the sustainability strategy as soon as possible.'

Moreover, implementation of the sustainability strategy will most likely result in technological progress, and the consequences of the technological progress are quickly understood by the subsidiaries. Taking environmental management as an example, for those subsidiaries, which are in the logistics industry, the technological progresses include identifying alternatives for fuel, optimizing the combination of different transportation methods, etc. For the container industry, the technological progress is more about using environmental friendly materials. *Yanyan Zhao, buyer from MCI, said,*

'All of these technological progresses mentioned above initially increase the cost, however, we believe that the sustainability practices will increase competitiveness and they will eventually pay back.'

Maersk Chinese subsidiaries have good capacity for **knowledge transformation**. Maersk Chinese subsidiaries regularly consider the impact of changing market demands for the portfolio of products and services. For example, Maersk's clients such as Nike and Wal-mart have the CO₂ emission reduction program. *Min Ge said,*

'As their supplier, we consider the impact of the demands, therefore, we have launched our Green Logistic program to reduce CO₂ emission and meet our clients' requests.'

The meetings held regarding the implementation of sustainability strategy are highly effective, and the newly acquired knowledge is documented and shared within the whole company.

Regarding the **knowledge exploitation**, Maersk Chinese subsidiaries are doing well. The HSSE managers clearly understand the group's sustainability strategy. *Nerissa Liu said,*

'Based on fully understanding, we are able to combine the existing knowledge and interpret the new strategy to fit the specific situation in China.'

Henry He said,

'In some areas, such as carbon footprint, we are even running in front of the HQ.'

All interviewees mentioned that they constantly consider how to better exploit knowledge on sustainability in one way or another.

According to the Scales and Items of Potential and Realized Absorptive Capacity (Jansen et al, 2005), we can conclude that Maersk's Chinese subsidiaries have the absorptive capacity, which enables the subsidiaries acquisition, assimilation, transformation and exploitation of the new knowledge.

SSCM is also new to the Chinese subsidiaries, and their absorptive capacity facilitates the implementation of the strategy, because in that case, they can quickly recognize the value of the new knowledge, uptake the knowledge and implement into their daily practices. If the subsidiaries have low absorptive capacity, the HQ would have spent a lot of recourses to persuade the subsidiaries that SSCM is valuable. The progress of the program will probably be delayed.

Figure 1 (see page 15) shows the Chinese buyers' feedback on Maersk's Responsible Procurement eLearning course. Responsible Procurement, as mentioned earlier, is Maersk's SSCM initiative, and the eLearning course introduces what Responsible Procurement means, why it is important, and how to implement it. The knowledge in the eLearning is on a very basic level, and covers topics of CSR and SSCM. Among 40 Chinese buyers who completed the eLearning course, 33 answered the questionnaire, making the response rate 82%. According to the feedback from the Chinese subsidiaries, by far, most of the buyers recognized the value of the program. 32 (97%) buyers agree or strongly agree that the RP eLearning is relevant to their work (S1), they think the eLearning is worth the time they spent (S2), they can fully recognize the value of the RP eLearning (S3), and they gain the understanding of RP (S4). It means that the buyers can recognize and assimilate Responsible Procurement knowledge from the eLearning course. Moreover, 24 (73%) buyers can relate the SSCM knowledge to their previous knowledge / practices (S7). 31 (94%) buyers mentioned that they would implement Responsible Procurement into their daily work (S8). After the eLearning course, the buyers become more interested in this topic (S9). The buyer's commitment and interests to the SSCM is important for the success implementation of the strategy. Our first hypothesis is supported by the findings.

Compared with the Danish employees (compare Figure 1 and 2), the employees in Chinese subsidiaries have more disagree on statement 5 and 6. Statement 5 goes, 'No background knowledge is necessary to better understand some of the content of the course.' 57% of the Chinese respondents disagree or strongly disagree with this statement. It means the content in the eLearning is too advanced for them to get fully understand. The Chinese employees need more background knowledge on CSR.

67% of the Chinese respondents disagree or strongly disagree that the information in the eLearning is applicable in the Chinese context (S6). The knowledge transferred from the HQ to the Chinese subsidiaries may not be applicable, which is not because the Chinese subsidiaries do not have absorptive capacity, but because that first of all, the Chinese subsidiaries do not have enough background knowledge to fully understand the knowledge; secondly, the knowledge is not considered as applicable in Chinese context. Most buyers think that in order to implement the SSCM, more country-based information is necessary. This is in accordance with Blowfield's argument that the current abundant CSR knowledge is not necessarily applicable for the developing countries' context. Xiaoping Han, Johnson Shen, Yanyan Zhao, and some other buyers mentioned that

'We agree that CSR is a good thing to do, and finally all the companies should fulfill their social responsibilities to make sure our suppliers conduct responsible practices, but the initiative is quite ambitious considering the current CSR in China. Although we will try to implement the SSCM, we can foresee the difficulties and barriers.'

The barriers are analyzed in the institutional perspective below.

Regulative Factor

Chinese CSR regulation is a strong driving force, which motivates Chinese companies towards responsible business practices.

Ruo Juan Zheng, professor from Xiamen University, said,

'In China, regulation is the strongest driving force for the companies to fulfill CSR. Compare to the Chinese government, none other governments have such a strong leverage.'

Zhi Yan Li, the founder and director of Social Resources Institute, said,

'In order to fulfill the instruction from SASAC, Central SOEs have made huge effort on reporting, because they do not want to lose face'

Besides the regulation enforced by the central government on the Central SOEs, some local governments are also enforcing the CSR to the companies through regulations. Hui Qin Xiao, officer of Shanghai Pudong District Office for CSR System Establishing, said,

'More than 1000 companies have voluntarily applied to attend the assessment, and about 200 companies are compliant with the standard. The companies who are verified as responsible companies can enjoy the incentives. For the rest companies, the government will give them an improvement plan. They are working actively toward sustainable businesses.'

Such regulative environment facilitates the implementation of SSCM in two ways. First of all, the suppliers are aware of the CSR concept. It would not be a totally new thing when the MNC introduces the concept to them. Second, the suppliers may be willing to cooperate with the MNC's SSCM, because the MNC can assist them in uplifting their CSR practices. At

the end of the day the supplier can meet both the government's and customers' CSR requirements.

Linda Wang from Maersk Group Procurement Shanghai shared her experience with a supplier.

'When we communicate Responsible Procurement with this supplier, they were very interested. They committed that they would cooperate. They feel appreciated that Maersk will work together with them to improve their CSR practices. They also hope that after going through the Responsible Procurement program, they will get improvement, and finally meet the requirements of the Pudong government. At the end of the day, they can enjoy the government incentives, and hopefully attract more customers.'

However, this is not always the case. The regulation may hinder the MNC's SSCM implementation if the supplier considers SSCM as a competing institution.

En Zhang, post doctor from Chinese Academy of Social Sciences, CSR Research Center said,

'According to our experience, some big Chinese companies, especially the SOEs, they are compliance with the laws and regulations, they provide relatively better working conditions, they give employees with good welfare, and they also do charity. They usually do not connect themselves with CSR risks. They do not see the point why they need to DO CSR concerning they are already doing quite well.'

George Hou, R&D Associate from STR supported En Zhang's statement,

'We have audited several SOEs. Most of the audit requests come from foreign companies. Some SOEs show resistance when we approach them. They said they do not need audit, there is no risk.'

When the buyers of Maersk Chinese subsidiaries reach out to suppliers, seeking cooperation on Responsible Procurement, some suppliers refuse to cooperate on SSCM because the suppliers think that they have already fulfilled the requirements from Chinese the government, and they are doing quite well on CSR, so why should they invest time and money to cooperate with a MNC's SSCM, which is extra work for them. Xiaoping Han from MCI, said,

'Besides the CSR requirements in Chinese regulation, if Maersk exerts extra CSR requirements on the suppliers through SSCM, the suppliers may think that we are making trouble and trying to create the trade barrier. If we keep pushing the suppliers, they may stop working with us. Stopping the relationship with our big suppliers will really affect Maersk's business because we cannot find alternative suppliers. However it will not do any harm for the suppliers, because we are just a small customer for them.'

Henry He mentioned that he met the same obstacles when introducing Responsible Procurement to the big suppliers, such as the terminals.

In that case, the buyers are discouraged from implementing the strategy, especially when they are still learning how to implement it. They would doubt whether this whole strategy is applicable in China. In such situation, the regulatory factor hinders the implementation of MNC's SSCM.

According to the findings, the regulative factor in China is a double-edged sword. It can facilitate or hinder the implementation of SSCM. It very much depends on how the suppliers treat the regulation and MNC's SSCM. The finding does not support hypothesis 2a.

Normative Factor

The survey carried out among the employees in Maersk Chinese subsidiaries (Figure 2 on page 16) shows that Maersk Chinese employees have relatively low agreement on the favorable normative environment. Among the 79 respondents, only 22 (28%) agree or strongly agree that there is a very strong message in companies in China that you can't stay in business nowadays if you do not do CSR (S1). 29 (37%) employees think that CSR is not necessary for a company to stay in business. 28 (35%) employees agree or strongly agree that Chinese people care a great deal about the social and environmental impact of their work (S2), and 24 (30%) employees disagree or strongly disagree with the statement. Only 21 (26%) employees think companies in China would do responsible business even if not required by the other stakeholders. 39 (49%) employees think it is expected that companies should do responsible practices in the future (S4), only 13 (16%) disagree with this trend. In conclusion, the Chinese employees consider CSR as a voluntary initiative; however, people do not recognize the value and importance of this initiative, so people do not care very much on their irresponsible practices. If the stakeholders do not make requirements on CSR, the companies are not likely to do it voluntarily, because CSR is not very necessary for the company to stay in business. However, the employees can see the trend that stakeholders will eventually make CSR requirements to the companies in the future.

In such normative environment, the MNC's implementation of SSCM will be hindered for two reasons. First of all, the MNC's Chinese subsidiaries may not have proper CSR practices. It is almost impossible for a subsidiary to enforce the Code of Conduct to the suppliers, while the subsidiary itself cannot meet the requirements on the Code. Secondly, the suppliers are not likely to internalize the CSR practices into their core business, because this is just not how people do business in China at this moment.

Xiaoping Han explained,

'As a company, we still have to survive in the market. We are afraid that we may lose competitive advantage if we enforce too many requirements on our suppliers, and on the other hand our competitors are still operating an irresponsible and cheap business. Cost saving is still at the top of our agenda.'

Johnson Shen said,

'For those suppliers who depend on Maersk, I am pretty sure that they will cooperate with Maersk on Responsible Procurement. The problem is that it is difficult to internalize CSR to the suppliers. CSR is still not a part of business in China. I'm afraid

that the program will end up with only some paper work. The suppliers will perform as usual if we do not monitor their practices. I'm a little bit worried whether Responsible Procurement will achieve its purpose in China.'

Therefore, we conclude that if the buyers do not believe that SSCM is aligned with the norms and values of the whole society, they will not actively engage the suppliers into the SSCM.

Cognitive Factor

The survey carried out among the employees in Maersk Chinese subsidiaries (Figure 2 on page 16) shows that only 11 (14%) Maersk Chinese employees agree or strongly agree that Chinese people know a great deal about CSR (S5). Although CSR is a relatively new terminology for the Chinese people, being ethical and responsible is aligned with the Chinese culture, which is largely influenced by the Confucianism. Confucianism believes in 'Ren', which means moral excellence. 'Confucians stress the importance of love, goodness, humanity, and human heartedness.' (Miles, 2006)

George Hou said

'Most of the Central SOEs have quite good CSR practices, because they provide good welfare to the employees, they comply with all the law and regulations. They are doing quite good stakeholder management. Although the concept CSR is new to the Central SOEs, they have practiced CSR for a long time.'

En Zhang, post doctor from Chinese Academy of Social Sciences, CSR Research Center said,

'In 2009, our center published a report evaluating the Chinese companies' CSR information disclosure. The report caused a stir. A lot of companies called us asking why they are ranked at the end of the list, while they are doing quite well on CSR. We explained to them that the report is based on only the company website and CSR report. We find out that some companies have quite good CSR practices, but they don't disclose the information to the public.'

We can see that 66 out of 79 employees (83%) agree or strongly agree that doing responsible business is at the heart of who we are as a people (S6).

Yan Yan Zhao from MCI said,

'I totally agree that SSCM is necessary and important for Maersk to become a sustainable company, we as people would definitely endeavor to reduce the negative impact on the society and the environment. I hope one day, all the companies in China can incorporate CSR. We will try our best to implement SSCM, let's see how it works.'

39 (49%) employees realized that there is a lot of talk about CSR going on in the Chinese Media (S7). 30 (38%) employees agree or strongly agree that most of the successful companies in China have CSR programs (S8).

The reason is that in the Chinese cognitive and normative environment, the buyers may predict that the suppliers are not likely to cooperate, or the result of implementing SSCM is useless. The buyers' negative attitude will hinder the implementation of SSCM in China.

Conclusion

It is found that the MNC's Chinese subsidiaries' absorptive capacity facilitates the implementation of SSCM. If SSCM is new to the Chinese subsidiaries, especially to those who sit in the procurement functions, the absorptive capacity enables the subsidiaries quickly recognize the value of the knowledge, uptake the knowledge, and apply the knowledge into their daily work.

We found that the regulative factor in China is a double-edged sword, which may facilitate or hinder the implementation of SSCM. It depends on how the suppliers understand the relationship between CSR regulation and SSCM. The regulation can facilitate the SSCM if the supplier considers them to be aligned with each other. If they consider SSCM as an extra work, the local suppliers will reluctant to participate in MNC's SSCM and use the regulatory institution as an excuse.

Finally, we find that cognitive and normative environment in China is not favorable. In such unfavorable environment, the buyers are not likely to have promising attitude toward the SSCM. They are afraid of losing competitive advantage because of implementing SSCM. Therefore we conclude that the unfavorable cognitive and normative environment indirectly hinders the implementation of the whole strategy.

Tables and Figures

- S1 The eLearning is relevant to my work.
- S2 The eLearning was worth the time spent.
- S3 I fully recognize the value of the information provided in the training. (i.e. I understand why I am doing the eLearning, and what to do with the knowledge given by the eLearning.)
- S4 The information provided in the eLearning course is sufficient for me to gain an understanding of RP.
- S5 No background knowledge is necessary to better understand some of the content of the course.
- S6 I think the information in eLearning is applicable in my country. Therefore, no more country-based information is necessary in order to implement RP.
- S7 I am able to relate the knowledge gained through the eLearning to my previous knowledge / practice.
- S8 I will implement what I have learned in my daily work.
- S9 After completing the eLearning, I have gained further interest topics such as Responsible Procurement, Sustainable Supply Chain, CSR, sustainability, etc.

Table 1: Responsible Procurement eLearning Survey

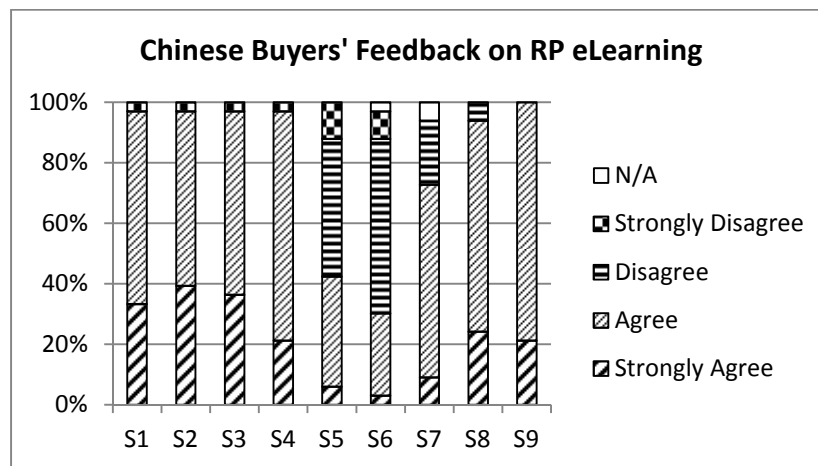


Figure 1: Chinese Buyer's Response to Responsible Procurement eLearning Survey (totally 33 Responses)

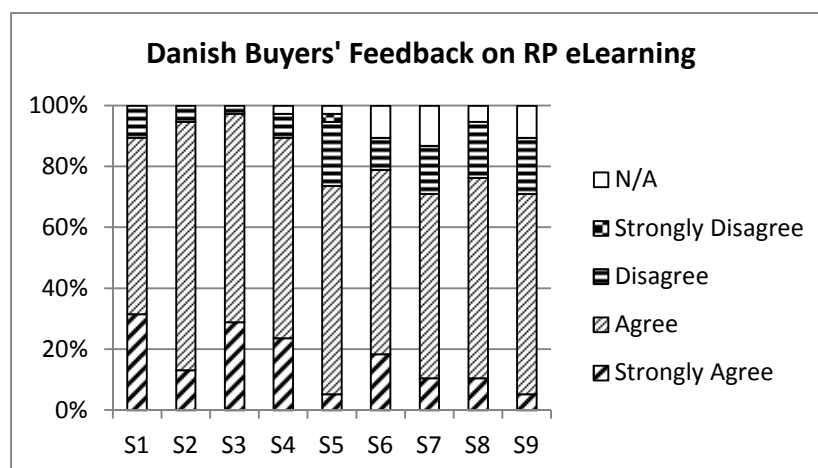


Figure 2: Danish Buyer's Response to Responsible Procurement eLearning Survey (totally 38 Responses)

Normative

- Q1 There is a very strong message in companies in China that you can't stay in business nowadays if you do not do CSR.
- Q2 Chinese people care a great deal about the social and environmental impact of their work.
- Q3 Companies in China would do responsible business even if not required by the other stakeholders.
- Q4 It is expected in China that companies would fulfill their social responsibility in the future.

Cultural Cognitive

- Q5 People in China know a great deal about CSR.
- Q6 Doing responsible business is at the heart of who we are as a people.
- Q7 There is a lot of talk about CSR going on in the Chinese Media.
- Q8 Most of the successful companies in China have CSR programs.

Table 2: Cognitive and Normative Environment Survey

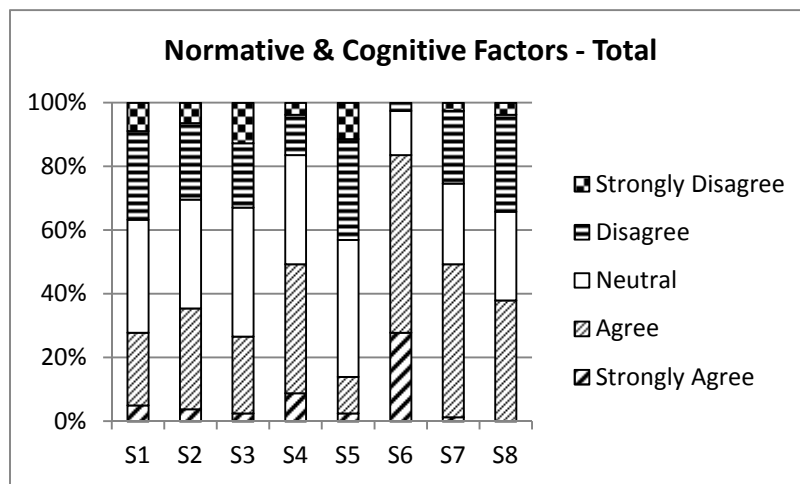


Figure 3: Maersk Chinese Employee’s Response to Cognitive and Normative Environment Survey (totally 79 responses)

Latent variables items	Interview questions about the interviewee's professional capability building
Knowledge acquisition	
Business units and functional groups strongly interact with upper levels to acquire new knowledge.	Does your company interact with upper levels to acquire new knowledge about Sustainability?
Different departments (business units/functional group/branch such as procurement, legal, different R&D) strongly interact with each other to acquire new knowledge.	<p>When implementing Sustainability Strategy, do different departments interact with each other to acquire their knowledge on this topic?</p> <p>Do you interact with other branch or BU to acquire new knowledge about Sustainability Strategy? E.g. discussing about the challenges and good practices. In which way (e.g. written document, phone, meeting, etc.)?</p>
The company collects industry information through informal means (e.g. lunch with industry friends, talks with trade partners).	Does your company collect industry information through informal means (e.g. lunch with industry friends, talks with trade partners)?
The company regularly organizes special meetings with third parties (customers, consultants, and so on) to acquire new knowledge.	Does your company regularly organize special meetings with third parties (customers, consultants, and so on) to acquire new knowledge about Sustainability?
Knowledge assimilation	
We quickly recognize shifts in our market (e.g. competition, regulation, demography).	<p>When you implementing Sustainability Strategy, does it because that you recognized the shifts in the market (e.g. competition, regulation, demography)?</p> <p>Compare with your competitors, do you think you are the forerunner of implementing Sustainability Strategy?</p>
New opportunities to serve our clients are quickly understood.	Before you implementing Sustainability Strategy, did you recognize that implementing it would bring you new opportunities to serve your clients or even attract and develop new clients?
Consequences of technological progress are quickly understood.	<p>When implementing Sustainability Strategy, does it bring any technological progress?</p> <p>Can you understand the consequences of its technological progress quickly during the process of implementing Sustainability Strategy?</p>
Knowledge transformation	
The company regularly considers the impact of changing market demands for the portfolio of products and services (e.g., employees full-time dedicated as part of product management, regular meetings, and so on.)	Does your company regularly considers the impact of changing market demands for the portfolio of products and services, e.g. what will you do if the market requires more environmental friendly products?
The meeting held regarding new operations and products are highly	When implementing Sustainability Strategy, do you think the meeting held regarding new operations and

effective (meeting goals are set and achieved, and so on).	products are highly effective (meeting goals are set and achieved, and so on).
Newly acquired knowledge is documented and shared within the whole company.	When implementing Sustainability Strategy, does the newly acquired knowledge is documented and shared within the whole company? Does the employee share newly acquired knowledge with the others?
The application of new knowledge to existing knowledge is quickly recognized.	When implementing Sustainability Strategy, did you quickly recognize the newly acquired knowledge is related to existing knowledge, and recognize the usefulness of the new knowledge to the existing knowledge?
Knowledge exploitation	
The processes (e.g. procedures and so on) for all kinds of activities are clearly known (e.g. face-gate-process, standard operating procedures, and so on).	After the Sustainability Strategy program is initiated, are the processes (e.g. procedures, and so on) for all kinds of activities clearly known (e.g. face-gate-process, standard operating procedures, and so on)? Does your BU have a clear division of roles and responsibilities?
We experience difficulties in implementing client requests (e.g. product modifications, and so on).	Did you experience difficulties in implementing client requests (e.g. product modifications, and so on)?
We constantly consider how to better exploit knowledge (e.g. lessons learned processes).	Do you constantly consider how to better exploit knowledge on Sustainability? (e.g. lessons learned processes).

Table 3: Absorptive Capacity Interview Questions

Interview – Absorptive Capacity

Ge, Bill Min. HSSE Manager, Damco Shanghai, China.

He, Henry Zhi Qing. HSSE Manager, Maersk Line Xiamen, China (PRE).

Liu, Nerissa Xiao Dan. HSSE Manager & Buyer, Maersk Line Qingdao, China (PRN).

Zhao, Yanyan. Buyer, Maersk Container Industry Qingdao, China.

Interview – Institutional Factors

Hou, George. R&D Associate, Responsible Sourcing, STR.

Li, Zhi Yan. Director, Social Resources Institute.

Xiao, Hui Qin. Officer, Shanghai Pudong District Office for CSR System Establishing.

Zhang, En. Postdoctor, CSR Research Center, Chinese Academy of Social Sciences.

Zhen, Ruo Juan. Associate Professor, Center of CSR & Culture, Xiamen University.

Participate Observation

Gu, Cathy Jian Yuan. Buyer, Maersk Container Industry Dongguan, China.

Han, Xiao Ping. Responsible Procurement coordinator, Maersk Container Industry Qingdao, China.

Shen, Johnson Qiang. Buyer, Brigantine Shenzhen, China.

Wang, Linda. Category Management, Maersk Group Procurement Shanghai, China.

Table 4: Interviewee List & Participate Observation Objective

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