

University of Groningen

Tensions in sustainable supply chain management: instrumental, institutional, and paradoxical perspectives

Xiao, Chengyong

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Xiao, C. (2019). Tensions in sustainable supply chain management: instrumental, institutional, and paradoxical perspectives. [Groningen]: University of Groningen, SOM research school.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Chapter 4

Inside the buying firm: exploring responses toward paradoxical tensions in sustainable supply chain management

4.1 Introduction

Attempting to achieve sustainability in supply chains involves multiple tensions (Hahn, Pinkse, Preuss, & Figge, 2015; Montabon, Pagell, & Wu, 2016). Tensions can surface between short-term profitability and long-term environmental integrity (Slawinski & Bansal, 2015; Wu & Pagell, 2011), between cost efficiency and sustainability (Busse, 2016; Ruwanpura & Wrigley, 2011; Yu, 2008), and between competing stakeholders' interests (Chung, 2015; Thornton, Autry, Gligor, & Brik, 2013; Wu, Ellram, & Schuchard, 2014). Despite this, research in the fields of corporate sustainability and sustainable supply chain management (SSCM) has predominantly followed an instrumental perspective which takes for granted the dominant role of economic concerns over social and environmental goals (Gao & Bansal, 2013), and continues to view the relationships among environmental, social, and economic goals in terms of either win-wins or trade-offs (Van der Byl & Slawinski, 2015).

However, there have been recent conceptual attempts to provide alternative perspectives to this instrumental view on sustainability by conceptualizing sustainability and other business targets as equally important, but not easily unifiable, aims (Hahn et al., 2015; Matthews, Power, Touboulic, & Marques, 2016; Montabon et al., 2016). Some proponents of this emerging perspective even consider sustainability and other business aims as constituting a paradox – contradictory yet interrelated elements that exist simultaneously (Lewis, 2000; Hahn et al., 2015). Paradox scholars encourage managers to accept and embrace contradictions, rather than attempt to resolve the tensions between them (Andriopoulos & Lewis, 2009; Lewis, 2000; Smith & Lewis, 2011). This, however, requires managers to apply paradoxical rather than adversarial sensemaking on sustainability issues. Unfortunately, empirical research that systematically explores to what extent managers actually develop paradoxical sensemaking when it comes to sustainability is generally scarce, and lacking in a supply chain context.

Given that Western buying firms have been strongly criticized for being a major source of the sustainability tensions experienced by suppliers (Huq, Stevenson, & Zorzini, 2014; Lund-Thomsen & Lindgreen, 2014), we have taken a closer look “inside the buying firm” to try to understand how managers within buying firms deal with contradictory aims in the context of an emerging market. The responses of managers inside the buying firm can have a profound impact on how suppliers experience sustainability tensions (Jiang, 2009; Lund-Thomsen &

Lindgreen, 2014). One should also acknowledge that a buying firm is not a monolithic entity, and different functional groups, such as purchasing and sustainability management, may pursue their own interests and consequently develop different responses to these tensions. As such, it is important to distinguish between these functional groups as their sensemaking and behavioral responses might indeed differ (Hahn et al., 2015). We thus ask: “*How do purchasing and sustainability managers within the buying firm make sense of and respond to paradoxical tensions in sustainable supply chain management?*”

In order to answer this question, we have conducted an in-depth case study at a large multinational company in the consumer electronics industry (referred to as COSMOS) that sources substantially from China. Our extensive fieldwork reveals a mixed picture. We found that the dominant response by both purchasing and sustainability managers is still the intentional, or unintentional, suppression of sustainability ideals in order to achieve cost targets, reflecting the dominance of an instrumental logic in the practice of SSCM. However, we also observed that sustainability managers developed alternative responses by *contextualizing* standards to make them more “workable” for emerging-market suppliers and to alleviate the tensions in sustainability implementation. Even though contextualizing might not lead to genuinely radical changes toward “true sustainability” (Montabon et al., 2016; Pagell & Shevchenko, 2014), it is an important response as it allows managers to develop paradoxical sensemaking capabilities (Hahn, Preuss, Pinkse, & Figge, 2014; Smith & Tushman, 2005) which is a precondition for transcending organizational contradictions (Osono, Shimizu, & Takeuchi, 2008).

This chapter makes several contributions to the literature. First, recent developments in the study of corporate sustainability (e.g., Gao & Bansal, 2013; Hahn et al., 2015; Van der Byl & Slawinski, 2015) and supply chain sustainability (e.g., Markman & Krause, 2016; Montabon et al., 2016; Pagell & Shevchenko, 2014) have highlighted that sustainability research has yet to focus on the tensions present within supply chains. This chapter fills this gap by applying a paradox perspective that focuses on how purchasing and sustainability managers within a buying firm actually make sense of, and respond to, sustainability tensions. Our study is among the few that have empirically investigated, at the functional level, managerial responses to sustainability tensions within a firm seeking to address sustainability in its supply chain. As such, it is one of the first to investigate paradoxical tensions beyond the specific context of business-NGO partnerships (Sharma & Bansal, 2017) and hybrid organizations (Jay, 2013).

Second, we also contribute to research on organizational paradoxes more generally. Conceptual frameworks on organizational paradoxes have often ignored the political,

institutional, or social context in which the paradox is embedded (Hargrave & Van de Ven, 2017). This might be particularly relevant for the sustainability paradox since this “requires a system’s view of organizations and the environments in which they are embedded” (Slawinski & Bansal, 2015: p. 545). In the context of SSCM, emerging markets constitute a difficult environment as formal and informal institutions are often not sufficiently supportive of social and environmental sustainability (Huq, Chowdhury, & Klassen, 2016; Jiang, 2009; Parmigiani & Rivera-Santos, 2015). By incorporating the socio-economic environment and the systemic power distribution that shapes sustainability tensions, we provide insights for managers as to how sustainability tensions can be dealt with in such environments. Related to this, and third, we question the prescriptive nature of the paradox literature, which assumes that paradoxes can be productively dealt with once managers apply paradoxical sensemaking and accept contradictory elements rather than trying to resolve the tensions between them. We show that paradoxical sensemaking, particularly in the context of sustainability in emerging markets, is still the exception rather than the rule, and that managers need time to develop such cognitive capabilities. We argue that contextualizing requirements can enable purchasing and sustainability managers of buying firms to develop these capabilities, which are important in moving toward true sustainability in the future.

Below, we first outline our theoretical background starting with a paradox perspective on sustainable supply chain management. A paradox perspective highlights the importance of understanding the origin of sustainability tensions and managerial responses to address them. Following this, we introduce our research setting, data collection approach, and data analysis. We subsequently report the key findings of this chapter and discuss our contributions.

4.2 Theoretical background

4.2.1 Paradoxical tensions in SSCM

There is increasing criticism of the instrumental perspective adopted in SSCM (Matthews et al., 2016; Montabon et al., 2016). An instrumental perspective can be characterized by either having a win-win focus (business-case lens) and the idea that sustainability should improve, or at least not diminish, the economics dimension, or by thinking in terms of trade-offs, i.e. a choice between options, with firms normally choosing business over sustainability goals (Slawinski & Bansal, 2015; Van der Byl & Slawinski, 2015). Thus, sustainability is ultimately assigned a secondary position behind the other business aims.

Only a few studies have applied an explicit “paradox perspective” on sustainability tensions. Thinking in terms of paradoxes calls for a change in the sensemaking approaches that

managers use to accept and work with contradictory elements rather than seeking to resolve the tensions between them (Lewis & Smith, 2014). For example, Hahn et al. (2014) developed a conceptual model of managerial sensemaking and postulated that managers who have a paradoxical frame develop more ambivalent interpretations of sustainability issues and also respond more slowly and carefully to sustainability issues due to their greater awareness of risk and tensions. In a multiple case study of Canadian oil firms, Slawinski and Bansal (2015) observed that managers that juxtaposed, rather than polarized, short-term and long-term thinking were also better able to confront the tension between business and society. More recently, Sharma and Bansal (2017) investigated how NGO-business collaborations vary in their ability to effectively engage the commercial-social paradox by meeting both commercial and social impact expectations. A common insight from these studies is that paradoxical sensemaking helps managers to productively deal with the paradoxical tensions of sustainability.

To date, the paradox perspective has not been applied in SSCM research despite claims of its potential usefulness (Matthews et al., 2016). This is surprising given that the SSCM literature identifies numerous paradoxical tensions experienced by suppliers in the process of implementing buyer's sustainability standards. Sustainability improvements usually entail major operational changes and substantial costs for suppliers, leading them to experience profound contradictions between cost competitiveness and sustainability aims (Lund-Thomsen & Lindgreen, 2014; Ruwanpura & Wrigley, 2011; Yu, 2008). Moreover, the sustainability standards of Western buying firms can conflict with cultural norms in the socio-economic environment of emerging markets (Huq et al., 2014; Neilson & Pritchard, 2011). For example, in Western countries, the use of child labor is illegal and a cultural taboo whereas, in emerging markets such as India and Bangladesh it is sometimes regarded as a supplementary schooling system (Lund-Thomsen & Lindgreen, 2014; Neilson & Pritchard, 2011).

There are strong indications that the paradoxical tensions experienced by suppliers are moderated by the buying firm's approach to sustainability. For example, if managers within the buying firm continue to take an instrumental perspective on sustainability, they will very likely prioritize traditional purchasing targets such as delivery, flexibility, and cost over sustainability goals should tensions surface in supply chain management (Lund-Thomsen & Lindgreen, 2014; Neilson & Pritchard, 2011). In contrast, if managers within the buying firm develop paradoxical sensemaking, and start to accept the contradictory but interrelated nature of sustainability, we would expect increasing efforts to generate novel solutions that enhance both the sustainability and the purchasing aims in the supply chain.

4.2.2 Managerial responses to paradoxical tensions in SSCM

When managers see sustainability and traditional business aims as adversarial, they conceptualize them as a trade-off, i.e., as an exchange of one thing for another (Angus-Leppan, Benn, & Young, 2010). This reflects an instrumental perspective on sustainability. In such situations, managers will try to promote their favored element at the expense of the other (Hargrave & Van de Ven, 2017), meaning that the tensions between business and sustainability aims will not be engaged (Van der Byl & Slawinski, 2015). In the context of SSCM, purchasing managers often pursue traditional purchasing targets such as delivery reliability, quality, and cost, while sustainability managers, who are in charge of implementing and auditing sustainability standards and practices at the suppliers' operations, will favor other opposing aspects.

Proponents of a paradox perspective suggest that managers and organizations can be more effective if they accept contradictory elements as both valid and recognize the interdependence and persistent nature of the contradictory elements (Jay, 2013; Lewis, 2000; Lüscher & Lewis, 2008; Smith & Lewis, 2011). This implies that managers apply paradoxical thinking, i.e. the cognitive frames that accept contradictions that leads to “recognizing a dilemma in which no choice can resolve the tension because opposing solutions are needed and interwoven” (Lüscher & Lewis, 2008: p. 229). Paradoxical thinking allows actors to develop a comfort with tensions that enables more complex and challenging response strategies. As a result, paradoxical thinking can transcend tensions by moving to a higher-order, overarching logic in which conflicting elements are understood to be interconnected and interdependent (Andriopoulos and Lewis, 2009; Smith & Lewis, 2011).

This transformative effect of sensemaking in the paradox literature can be questioned, however: its belief in the ability of individual managers to embrace and live with contradictions might easily “overstretch the behavioral flexibility of individual members” (Schreyögg & Sydow, 2010: p. 1259) and easily exceed their cognitive limits (Raisch, Birkinshaw, Probst, & Tushman, 2009). Put differently, the ability to think paradoxically, which is a crucial element of the paradox approach to engaging with and, by this, resolving paradoxical tensions, cannot be taken for granted and its development might be anything but straightforward.

Furthermore, paradoxes are often analyzed without considering the political, institutional, and social contexts in which organizations and actors are embedded (Hargrave & Van de Ven, 2017). More specifically, systemic power is missing from the paradox perspective.

Systemic power refers to institutionalized power that operates automatically in a society through “rules and routines which are seemingly independent of the interests of particular actors yet advantage some actors over others” (Hargrave & Van de Ven, 2017: p. 329). In the context of SSCM, the systemic power of both sustainability and purchasing aims can be reflected by their importance in supplier selection and evaluation systems, in overall corporate strategies, and ultimately in the target customers’ preferences. If the buying firm is not serving a niche market in which customers generally prefer sustainable products, it is very likely that sustainability will not have adequate systemic power over other purchasing aims in the firm’s overall SSCM. Systemic power is often distributed asymmetrically and is concentrated behind one element of the contradiction. When proponents of the subordinate element of the contradiction come to recognize that their interests are not being served, this can lead to situations where actors oppose each other and engage in “conflicts”.

To summarize, one needs to consider two factors, the sensemaking approach adopted (i.e., adversarial versus paradoxical) and the distribution of systemic power (i.e. symmetrical versus asymmetrical), to obtain a comprehensive understanding of managers’ responses to paradoxical tensions. In this respect, little is known about which sensemaking approaches managers from the purchasing and sustainability functions in buying firms develop in real life, and how this, in turn, guides their responses to paradoxical tensions.

4.3 Methodology

This study aims to gain an in-depth understanding of purchasing and sustainability managers’ sensemaking of and responses to sustainability tensions in buying firms. Case study research is an appropriate approach to addressing this question since it allows researchers to collect data from multiple sources and to make sense of actors’ perceptions and behaviors (Ketokivi & Choi, 2014; Yin, 2014). This method is suited to uncover more nuanced dimensions of SSCM, such as managers’ cognitive and behavioral struggles with the tensions in their everyday work. Following an inductive approach, our method aimed at the development of rich descriptions of the phenomenon of interest. As we aim to use the specific context of sustainable supply chain management to advance the general theory of paradoxical tensions, our case research can be characterized as theory elaboration (Ketokivi & Choi, 2014; Yin, 2014).

4.3.1 Case selection

Compared to a multiple-case study design, a single-case design can enable researchers to gain “experiential understanding” (Stake, 1995) of the phenomenon of interest, which refers to a

thorough understanding of the complex interrelationships among social/organizational context, managerial sensemaking, actions, and interactions between the actors involved. Experiential understanding is particularly needed to explore complex management issues that entail cross-level and/or cross-functional interactions in organizations. As we can see in the management literature, empirical research in the field of organizational paradoxes that took a focal interest in managerial sensemaking has mostly used a single-case study design to develop a thorough understanding of the phenomenon of interest (e.g., Jarzabkowski, Lê, & Van de Ven, 2013; Jay, 2013; Lüscher & Lewis, 2008; Thomas, Clark, & Gioia, 1993). Consequently, in this study we opt for a single-case design (Yin, 2014), as this allows us to gain sufficient depth of understanding of how paradoxical tensions in SSCM are perceived within Western buying firms across hierarchical levels and different functions. Our field research focused on COSMOS, a multinational company in the consumer electronics industry.

This case was selected for the following reasons. First, the electronics industry has been subject to intense pressures from NGOs which repeatedly accused multinational brands of causing serious labor and environmental issues in emerging countries (Locke & Romis, 2012), as we could see from the Foxconn suicides and VTech labor abuses (Ngai & Chan, 2012). As a response to such pressures, COSMOS has been an active member of the EICC (Electronics Industry Citizenship Coalition), a coalition of electronics companies committed to supporting the rights and wellbeing of workers and communities in global supply chains. COSMOS requires all of its suppliers to comply with the COSMOS Supplier Sustainability Declaration, which is based on the EICC code of conduct and supplemented with additional requirements on collective bargaining and freedom of association. Second, since 2010, the executive board of COSMOS has faced strong pressure to reduce costs and increase profits. As a result, cost plays an ever-increasing role in COSMOS's selection, evaluation, and development of suppliers, while sustainability is also of growing importance as it has been specified as a KPI for purchasing managers since 2007. Third, COSMOS is regularly ranked as one of the leaders in the electronics industry in major sustainability rankings such as DJSI (Dow Jones Sustainability Index), and we had good reasons to assume that the company is making serious efforts to improve sustainability in its supply chains.

We focused on COSMOS's supply chains in China as the main battleground for supplier sustainability management for most multinational companies in the consumer electronics industry (Chung, 2015; Roth, Tsay, Pullman, & Gray, 2008). COSMOS categorizes its suppliers based on their sustainability risk profile, which is related to the level of purchasing, the country of production, operational risks (such as use of hazardous chemicals in production

processes), and the type of buyer-supplier relationship. In 2013, a total of 497 suppliers were identified as “risky”, and more than 80% of these were located in China.

4.3.2 Data collection

Data collection for this study took place in two phases. During the preparatory phase, we aimed at gaining a thorough understanding of COSMOS’s policy on supplier sustainability and the processes used in supplier sustainability management. We visited COSMOS corporate sustainability office at their headquarters three times and interviewed the corporate sustainability director on each occasion. Extensive notes were taken during these interviews. We also interviewed two high-ranking corporate purchasing directors. These two interviews were tape-recorded and fully transcribed. We collected internal documents on COSMOS’s supplier sustainability program, including their sustainability policies, standards, and manuals, and supplier sustainability audit reports. These interviews and documents provided us with a detailed account of COSMOS’s supply base, the internal organization of the purchasing and the sustainability functions (Figure 4.1), and their respective roles in the SSCM processes.

These two functions work mostly independently from each other, though strategic buyers do need to facilitate supplier sustainability experts in the process of supplier sustainability audits. Specifically, supplier sustainability experts often rely on the strategic buyers’ support to persuade and coerce suppliers to resolve non-compliances identified by third-party auditors. Meanwhile, strategic buyers often need the expertise and approval of supplier sustainability experts before new suppliers can be included in the COSMOS supply base.

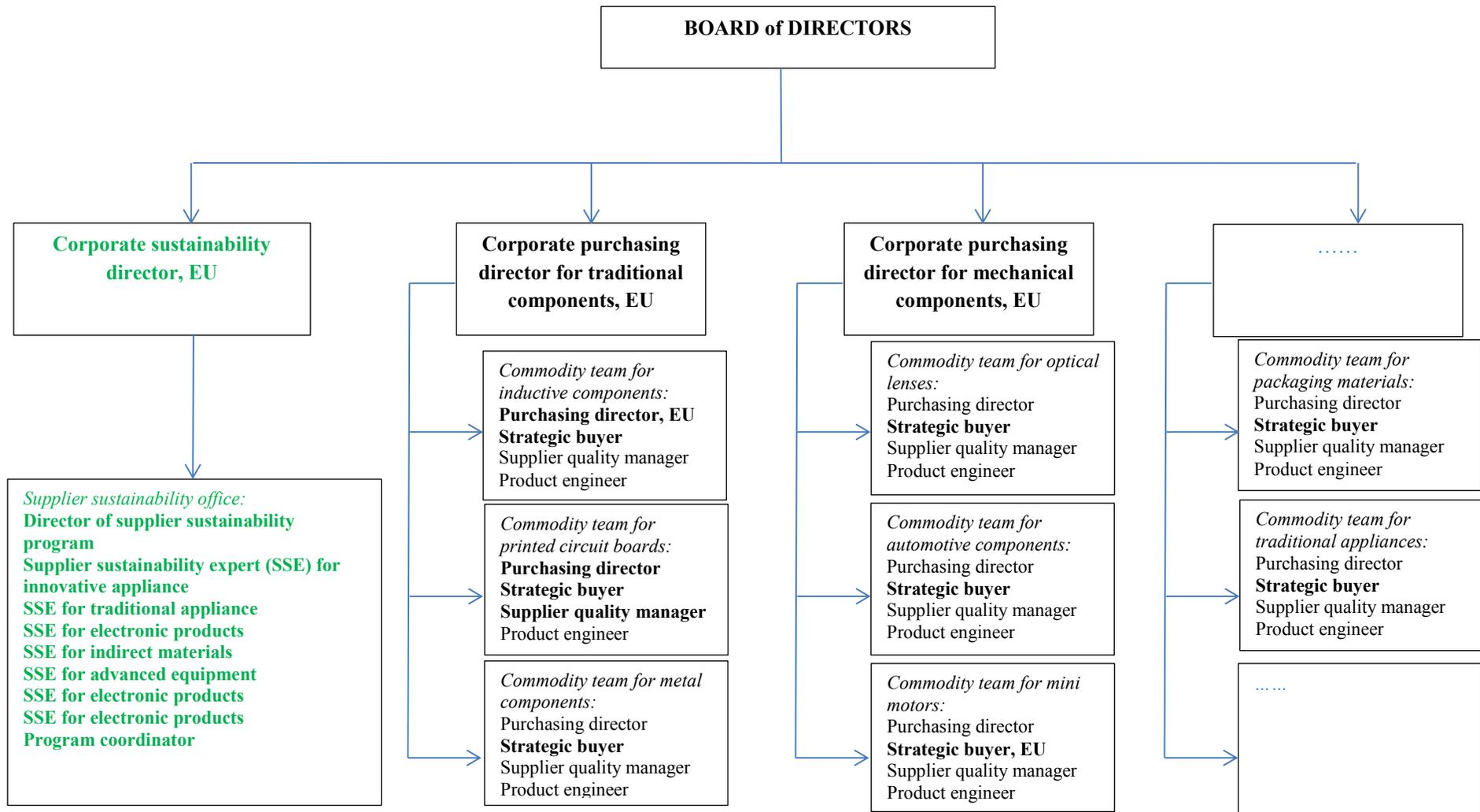


Figure 4.1. Internal Organization of the Purchasing and Sustainability Functions at COSMOS (Bold Indicates Our Interviewees)

Table 4.1: Overview of Interviewees

Management level	Sustainability Managers (SMs)	Number of interviews	Purchasing Managers (PMs)	Number of interviews
Top-level management	Corporate sustainability director (SM1), EU	3	Corporate purchasing director of traditional components (PM1), EU Corporate purchasing director of mechanical components (PM2), EU	1 1
Middle-level management	Director of supplier sustainability program (SM2)	1	Purchasing director of inductive components (PM3), EU Purchasing director of printed circuit boards (PM4)*	1 1
Low-level management	Supplier sustainability expert for innovative appliance (SM3)	2	Strategic buyer of automotive components (PM5)	1
	Supplier sustainability expert for traditional appliance (SM4)	2	Strategic buyer of optical lenses (PM6)	1
	Supplier sustainability expert for electronic products (SM5)	1	Strategic buyer of packaging materials (PM7)	1
	Supplier sustainability expert for indirect materials (SM6)	1	Strategic buyer of traditional appliance (PM8)**	1
	Supplier sustainability expert for advanced equipment (SM7)	1	Strategic buyer of printed circuit boards (PM9)	1
	Supplier sustainability expert for electronic products (SM8)	1	Strategic buyer of mini motors (PM10), EU	1
	Supplier sustainability expert for electronic products (SM9)	1	Strategic buyer of metal components (PM11)	1
	Supplier sustainability program coordinator (SM10)	1	Strategic buyer of optical lenses (PM12)	1
Total		14		12

The information collected in the preparatory phase helped us to prepare for the main phase of data collection where we conducted semi-structured interviews with two purchasing directors, eight strategic buyers, the director of the supplier sustainability program, and eight supplier sustainability experts (see Table 4.1 for an overview of interviewees and Appendix 4A for the condensed interview protocol). These managers were selected as representatives of all the major business sectors of COSMOS. The interviews primarily addressed the managers' tasks, responsibilities, and interactions with suppliers during the process of supplier selection, supplier monitoring, and supplier sustainability audits. All but two of our informants at this phase were based in COSMOS's purchasing and supplier sustainability offices in China, and they were interviewed during two field visits in 2014 and in 2015. During the interviews, we asked about moments in the supplier sustainability management process when respondents most strongly perceived tensions. We probed our interviewees to provide detailed descriptions of the tensions and the actions taken by themselves and other managers in the process.

In addition to these semi-structured interviews, we collected data through on-site observations, archival documents, and informal conversations. In carrying out these interviews, the first author was based in the COSMOS supplier sustainability office for three weeks. This physical presence enabled the author to directly observe the daily activities of sustainability managers and their interactions with supplier representatives, purchasing managers, and third-party auditors. The first author was invited to attend several department meetings held between the director of the supplier sustainability program and his team members (eight supplier sustainability experts), and a training session for about 50 supplier representatives. Extensive field notes were taken during this period of observation. Further, we collected several archival documents on supplier sustainability audits and development programs. Moreover, during the two visits, the first author participated in several social activities during which he was able to have informal conversations with purchasing and sustainability managers. Direct interactions enabled immediate clarification of open questions, and the informal discussions were useful in building up trust and validating the information gained during the interviews.

In total, we conducted 26 semi-structured interviews, which lasted between 30 and 150 minutes, with an average of 55 minutes. Based on permission from the individual interviewees, all but five interviews were recorded and fully transcribed. Interview transcripts, field notes, and meeting minutes amount to approximately 400 pages of written documentation.

4.3.3 Data analysis

In analyzing the data, we first followed a “narrative strategy” (Langley, 1999) to construct a detailed case story from the raw data. While we also found instances of tensions between sustainability and delivery flexibility, it soon became clear that the tension between sustainability and cost competitiveness was indeed the most predominant one.

In the second step, we imported the interview transcripts, meeting minutes, and field notes into a database. Using Atlas.ti, we coded the data in an inductive way, trying to stick as closely as possible to informants’ language, based on which we developed a comprehensive compendium of first-order codes. We followed the Gioia methodology (Gioia, Corley, & Hamilton, 2013) and distilled first-order terms into second-order themes by referring to the literature on paradoxes and tensions (Jarzabkowski et al., 2013). We grouped codes into “responses to tensions” that we labeled either as “synergizing both elements” or “suppressing one element” in line with the literature (Hargrave & Van de Ven, 2017; Jarzabkowski et al., 2013; Lüscher & Lewis, 2008). Moreover, we identified a third response that we labeled as “contextualizing” that did not seem to fit with any existing description of responses in the literature. While contextualizing seems to resemble suppression on a more superficial level, it constitutes more than simply prioritizing cost over sustainability targets. We inductively worked out the distinctive characteristics of this response strategy that we deem as a highly specific response to sustainability tensions in an emerging-market context. Two authors conducted the coding and labeling, with the other authors acting as internal reviewers providing critical comments and suggestions. We conducted several rounds of coding, labeling, and discussing until all the authors agreed upon the codes.

4.4 Findings

In the following section, we present a detailed account of the tensions related to sustainability that emerge at the level of the socio-economic environment in China, before we describe how managers in the purchasing and sustainability functions responded differently to these tensions.

4.4.1 The tension between sustainability standards and the Chinese socio-economic environment

Like Western buying firms, COSMOS bases its supplier sustainability standards on local laws and regulations related to labor practices and environmental protection in the supplier’s country. However, we observed substantial tensions between COSMOS’s supplier sustainability standards and the socio-economic environment in China regarding several issues. The issue of

overtime is a case in point. In 2008, the Chinese government enacted a new Labor Contract Law that restricts overtime to 36 hours per month to level with international labor standards (Chan & Pun, 2010). However, it seems that few suppliers are actually complying with this law. As labor cost is rapidly increasing in China, most suppliers use overtime as a means to control staff size and reduce labor cost. Furthermore, as the minimum wage is still fairly low in China, factory workers generally prefer to work extra hours to boost their take-home incomes. Most factory workers migrate from the rural areas of China to the industrialized Eastern part of China for a limited period to earn as much as possible before they return to their families. Overtime is viewed by workers as a key indicator that shows that a factory is doing well, and factories that strictly control overtime have great difficulty in attracting and keeping skilled and motivated workers. Labor agencies of provincial and municipal governments often turn a blind eye to such practices as long as overtime is scheduled on a voluntary basis and workers receive fair monetary compensation for their overtime work. As such, our interviewees from both purchasing and sustainability functions complained that an insurmountable gap exists between the law and the socio-economic reality regarding overtime in China. As one interviewee explained:

Some laws in China are not really consistent with the reality. Most export-oriented industries in China are very labor-intensive, and workers generally need to work long hours to earn a decent salary. However, [*the Chinese*] labor law only allows 36 hours of overtime each month. Most of our suppliers cannot comply with this requirement. This makes our work extremely challenging. (SM4, Supplier sustainability expert for traditional appliance)

Serious tensions between the legal requirements and the socio-economic environment in China also exist around social insurance issues. According to the China Social Insurance Law enacted in 2011, employers should involve all their employees in the social insurance program, which includes endowment insurance, medical insurance, unemployment insurance, work-related injury insurance, childbirth insurance, and housing accumulation funds. Employers are meant to cover about 60% of insurance fees, and employees cover the rest. In reality, however, because it is very costly, most suppliers are not complying with this law. In Shanghai, for example, covering the social insurance for a workshop worker would cost the employer at least 500 Yuan (80 USD) each month. Strict compliance with social insurance regulations would seriously erode the profitability of small suppliers and threaten their survival:

We have many SME suppliers. The owners of these suppliers are quite willing to cooperate with us in the sustainability program, but the cost pressures can be overwhelming for them. For example, I have a supplier that has a very small annual turnover of about 4.5 million YUAN. Its profitability is around 5% and 6%, which means the annual profits for the owner would be 500 to 600 thousand YUAN. Covering social insurance for all the workers will kill all these profits. (PM11, Strategic buyer of metal components)

Moreover, factory workers from rural areas are hesitant to contribute to the social insurance program because of substantial barriers in the cross-province transfer of social insurance benefits. In addition, several high-profile scandals related to this system (cases of embezzlement and corruption) have seriously undermined its legitimacy and attractiveness. Again, most local labor agencies (except in Shanghai) are not strictly enforcing this law, as strict enforcement will very likely drive suppliers away to cities that have less demanding requirements.

Another serious tension exists regarding government-issued permits. According to Chinese laws, factories must obtain necessary environment and safety permits before they start operations, but in reality, this is not always the case. Due to complicated bureaucracy and widespread corruption, it is generally very time-consuming and costly to apply for all the necessary permits. As such, presumably more than 90% of Chinese suppliers are operating without all the necessary government-issued permits for their workshops and facilities. As local governments will not grant permits to factories ex post facto that have been constructed illegally, the remedy to this issue would mean that suppliers have to tear down their buildings and apply for all the permits before constructing new ones:

It is very common in our country, especially in the Pearl Delta Area and the Yangtze Delta Area, that factories lease workshops from local enterprises, which constructed the workshops before they had obtained all the necessary environment and safety permits from the local government... It is extremely costly to apply for these types of permits. (PM5, Strategic buyer of automotive components)

4.4.2 Purchasing managers' responses to sustainability tensions

Purchasing directors and strategic buyers at COSMOS played an active role in managing suppliers' sustainability by informing suppliers about the COSMOS sustainability policies and monitoring the resolutions of non-compliances identified by third-party auditors. Along with traditional purchasing targets such as cost, quality, delivery, and new product development,

these purchasing managers included supplier sustainability as one of their KPIs. In particular, purchasing directors and strategic buyers at COSMOS had a good understanding of the low profitability levels of their Chinese suppliers and the tensions they experienced when they try to comply with the sustainability standards. Several purchasing managers, among them the strategic buyer of metal components, even acknowledged that the aggressive cost focus of Western buying firms including COSMOS are not conducive to help Chinese suppliers to fully comply with sustainability standards:

Each year, we are having more and more demanding requirements for our suppliers on the aspects of quality and sustainability, but purchasing prices are not increased to compensate for suppliers' efforts and costs. To the contrary, we are aggressively demanding cost down each year. (PM11, Strategic buyer of metal components)

While purchasing managers showed themselves generally sympathetic towards suppliers' struggles and their tensions around sustainability, there was a clear limit to their sympathy. When confronted with suppliers' complaints about the severity of cost reduction targets and the additional costs of resolving non-compliances identified in audits, purchasing managers would usually respond by highlighting the importance of supplier sustainability as a corporate policy and precondition of supplying COSMOS. As suppliers were often left on their own when dealing with the cost-sustainability tension, we interpreted this response as an instance of *suppression*. In its strongest form, suppression means that costs are prioritized over sustainability in supplier selection decisions, which can be seen in the following case. Since 2012, COSMOS has formulated annual cost reduction requirements for all their strategic buyers and their suppliers, typically ranging from 5% to 20%, and sometimes even up to 30%. As suppliers were increasingly struggling to meet the annual cost-reduction requirements, a strategic buyer in the commodity team for mechanical components, coded as PM6, found it extremely difficult to push suppliers to further reduce their prices:

Each year I have to meet cost-down requirements. *[a long sigh]* Compared to other brands, our products do not have a price advantage at all. Our competitor's [products] are very cheap, 5 Yuan each. (...) I reached out to their suppliers. Yeah, their suppliers' costs are low but they do not have very good quality, and they do not have a good sustainability performance. *[a long pause]* Should we switch to such suppliers? (PM6, Strategic buyer of optical lenses)

I have been caught in a struggle for a long time. Where can we find cheap and good products? (...) Now I am troubled by this tension, and I need to make a choice. I visited many suppliers that are not

doing business with COSMOS. Those suppliers do not have decent working conditions, but they have low costs. Our suppliers have no cost competitiveness over these suppliers, because our suppliers have good process control, quality control, and substantial investments in improving employee wellbeing and reducing environmental impact, but can we switch to such suppliers? (PM6, Strategic buyer of optical lenses)

PM12, a strategic buyer worked with PM6 in the same commodity team, later confided that most of the orders to that supplier were in fact switched to another supplier with lower cost but worse sustainability performance.

In another example, we observed that sustainability was suppressed by purchasing managers in a subtler way. As purchasing managers were the primary contact between suppliers and COSMOS, sustainability managers, without having direct access to suppliers, must rely on their purchasing colleagues when they needed to exert pressure on suppliers for sustainability compliance. And they did so with varying degrees of success. In one case, SM3 complained to us that he did not receive the necessary support from PM5 to force a supplier to resolve non-compliance issues after this supplier had been found to have violated the EICC code of conduct in the 2013 audit. In another instance, PM12 confided that sometimes he, just like his purchasing colleagues, had to “buffer” the pressure for compliance from sustainability managers, so that sustainability demands would not substantially undermine his suppliers’ ability to meet cost and other purchasing targets. For example, he would occasionally postpone responding to sustainability managers’ requests to pressure suppliers to resolve non-compliances identified by third-party auditors.

4.4.3 Sustainability managers’ responses to sustainability tensions

The “supplier sustainability office” of COSMOS consisted of nine sustainability managers: one director of supplier sustainability program and eight supplier sustainability experts. The office was in charge of conducting training sessions to supplier representatives to help them understand the EICC code of conduct a few months before the third-party audits. Shortly after the audits, supplier sustainability experts were monitoring the suppliers’ audit resolution process, often with the support of their purchasing colleagues. The sustainability managers at COSMOS were mainly evaluated by supplier sustainability performance such as overall compliance rate and average number of non-compliances.

In a setting where sustainability goals were oftentimes suppressed by purchasing managers, we found that sustainability managers at COSMOS were developing varied

responses to the cost-sustainability tension. As the sustainability managers had limited say in the selection of suppliers, they were trying to overcome their frustration when they found out that suppliers with good sustainability performance had been phased out again due to cost-related reasons. Instead of engaging in open conflicts, however, we observed multiple instances where sustainability managers started to accept and even rationalize suppressing actions taken by purchasing managers by referring to the competitive industry environment that COSMOS was operating in:

I know they [purchasing managers] are doing that [suppression of sustainability]. What can I do? COSMOS is not a philanthropist, and it has to make profits. We know they [purchasing managers] are working under tremendous pressures. (SM7, Supplier sustainability expert for advanced equipment)

In other instances, suppression occurred very subtly when sustainability managers were overly sympathetic towards their suppliers' struggles to meet sustainability standards. They highlighted that it would be unrealistic to expect small- and medium-sized manufacturers to have dedicated directors, complete management systems, and adequate resources for sustainability management. This sense of sympathy was clearly perceptible in the unrecorded interviews and informal talks, where the interviewees tended to be more open and outspoken. However, too much sympathy towards suppliers, especially the small family-owned ones, could lead sustainability managers to turn a blind eye on suppliers who made improvements on sustainability, though these suppliers may still pose certain levels of sustainability risks. This might bear the risks of an unintentional suppression of sustainability as the following example shows:

The [...] sector had a lot of small factories which just consist of a few family members. It was quite difficult for this kind of supplier to fully comply with the EICC code of conduct. They did not have sufficient managerial and financial resources for sustainability. Therefore, we have different requirements for different suppliers. When we were conducting resolution audits, we may close non-compliances even though the suppliers were not really compliant. I know that they have tried their best. (SM3, Supplier sustainability expert for innovative appliance)

These instances of suppressing on the part of sustainability managers were, however, mostly observed for cases of small suppliers, presumably because the expected reputational damages from any sustainability risks are minor. Yet, we observed, when dealing with bigger suppliers, the sustainability managers tried to develop creative solutions for their suppliers that would help them to find a more affordable alternative to full compliance. We labeled this

response as *contextualizing* as it tries to soften the sustainability requirements to make them more “workable” in the socio-economic environment of China. This response differs from the suppression of sustainability insofar as the overall aim of the sustainability standard remains intact but the specific measurements might be lowered. Unlike suppression, contextualizing is also based on sustainability managers’ active involvement in developing a workable solution for their suppliers.

For example, the EICC code on government-issued permits was adapted to the socio-economic reality in China. Instead of asking suppliers to go through a costly and bureaucratic procedure to obtain governmental permits, which would result in a complete reconstruction of their factories, suppliers could be labeled as compliant if they were able to provide alternative evidence of sustainability compliance. Such evidence might include reputable third-party certifications verifying that suppliers meet the necessary safety and environmental standards:

The main purpose of this program is to evaluate and mitigate potential risks. Why would we trouble our suppliers and ourselves even though the suppliers have no substantial risks? Even if a supplier does not have all the necessary government-issued permits, we can label them as compliant as long as we believe that they have complete procedures and equipment for firefighting and emergency preparedness. (SM3, Supplier sustainability expert for innovative appliance)

In another instance, SM4 (supplier sustainability expert for traditional appliance) shared one story about a supplier in Changzhou that did not have the necessary permits to process products containing mercury. Sustainability managers at COSMOS checked the functioning of the equipment that absorbs mercury in the workshop and made investments in a monitor to check the level of mercury in the wastewater of the supplier to guarantee that it did not exceed the legal limit. After several rounds of thorough checking, the director of supplier sustainability program decided to label this supplier as compliant.

In a similar vein, as a response to suppliers’ ongoing struggles to meet legal overtime limits, high-level sustainability managers at COSMOS decided to relax the overtime limit to 80 hours per month, which is well above the legal limit of 36 hours per month. While 80 hours of overtime per month might still seem excessive from a Western perspective, it is not seen as such in the Chinese manufacturing industry where a six-day work week is not uncommon. We observed, however, that despite this adjustment, overtime remained a thorny issue that was difficult to tackle for suppliers. Dealing with this issue, we found that sustainability managers decided to downgrade overtime from a red-marked (urgent) to an orange-marked (less urgent) issue, as they deemed the negative impact of overtime on workers’ wellbeing as less serious

than other red-labeled issues such as unsafe workplaces and insufficient remuneration. COSMOS still insists that suppliers meet the overtime limit of 80 hours but relabeling the requirements grants them more time for the resolving process:

There are some differences between EICC code of conduct and China laws. Let me take overtime as an example. The legal limit of overtime is 36 hours per month in China... We are not so strict on this issue, and we set a limit of 80 hours of overtime per month. This requirement is relaxed, compared to China Labor Law. (SM9, Supplier sustainability expert for consumer electronics)

Relabeling this requirement from red to orange does have a substantial impact on the follow-up resolving process. Red issues are more urgent and we require suppliers to resolve red non-compliances within three months. Suppliers have to resolve orange issues within six months. Considering that reducing overtime is not that easy, our boss decided to give suppliers more time for resolving non-compliance. (SM10, Supplier sustainability program coordinator)

Moreover, the EICC requirement on occupational health checks was also contextualized to fit within the socio-economic context of China. The Chinese Law on Occupational Health and Safety requires all employees to pass occupational health checks before starting a new job, which is very difficult for suppliers to organize, due to the high turnover rate of new employees. COSMOS thus decided to contextualize this requirement and decided that all workers should go through occupational health checks within their three-month probation period, rather than in advance of starting the job.

Beyond suppressing and contextualizing sustainability, sustainability managers at COSMOS were also making efforts to transform the relationship between cost and sustainability from an adversarial to a synergistic one—a response we labeled as *synergizing*. Synergizing goes beyond contextualizing as it constitutes a true attempt to accommodate opposing targets. In particular, improvements in supplier productivity were praised for their potential to establish a positive link between sustainability and the other purchasing targets:

We want to help our suppliers. We have been making substantial efforts to improve supplier sustainability. (...) Only when suppliers have improved their performance can we really stimulate them for sustainability. I do not think suppliers and us have antithetical positions. We have aligned interests. (SM5, Supplier sustainability expert for electronic products)

Improved productivity can help suppliers to reduce overtime while keeping the same level of salaries to workers. Overtime is a thorny issue for most suppliers. Simply reducing overtime will decrease workers' incomes, which will further result in employee turnover and instability. Improving

productivity should be an effective approach to resolving this problem. (SM10, Supplier sustainability program coordinator)

At the time of this study, the sustainability managers were encouraging suppliers to participate in several pilot programs, including a multi-brand initiative on improving management-worker relationships in the electronics industry. The aim of this program was to increase employee satisfaction and reduce employee turnover, which can further improve product quality and productivity. Other initiatives include encouraging suppliers' participation in the Carbon Disclosure Project and the Low-Carbon Manufacturing Program.

However, COSMOS had difficulty in convincing suppliers to participate in the multi-stakeholder initiative as the benefits of the program were not clear. Yet, once a supplier had actually achieved the productivity improvements from this program, sustainability managers were enthusiastic and communicated this successful case in the internal journal of COSMOS:

With guidance from the team, [supplier XY] increased productivity by 11% in one month through bottleneck management, increased on-time delivery by 19% through resource utilization and prioritization, and increased expediting speed 25% with a visualized and prioritized material availability status. The materials management workload was also reduced drastically. (COSMOS Procurement Newsletter)

As most of these projects are still in the pilot stage and their outcome in terms of overcoming the cost-sustainability tension is still unclear, synergizing appears to be a less common response of sustainability managers at COSMOS.

4.5 Discussion

This study has explored how managers within buying firms, as key stakeholders in supply chain sustainability (Markman & Krause, 2016; Wu et al., 2014), make sense of, and respond to, the paradoxical tension between cost and sustainability in their daily operations. In line with earlier investigations (e.g., Deegan & Shelly, 2014), our in-depth case study of a large multinational company sourcing from China confirms that, in practice, an instrumental perspective on sustainability is still prevalent. As a consequence of such adversarial sensemaking, we observed several instances of *suppressing* sustainability goals for the sake of cost reductions. This response strategy was particularly common among purchasing managers, but we were also able to observe its use among sustainability managers who yield to cost pressures. Suppression can also occur for other reasons, such as when sustainability managers overly sympathize with the

struggles of small-scale suppliers in addressing sustainability regulations, and thus avoid asking for alternative checks to ensure that sustainability risks have not been incurred. While suppression resolves tensions temporarily, it can lead to unintended consequences when tensions later resurface and escalate, as then focusing on one of the elements will spark a stronger pull from its opponent (Lewis, 2000). This leads to our first proposition:

Proposition 4.1: When managers continue to apply an instrumental perspective, the underlying adversarial sensemaking will lead to a suppression response that resolves paradoxical tensions at the expense of supplier sustainability, which increases the risk of paradoxical tension escalation.

However, we also found several instances of a different response, which we labelled as contextualizing. We saw sustainability managers contextualizing in order to adapt sustainability standards to the socio-economic environment of China and make them more “workable” for suppliers. While some features of contextualizing resemble suppression in that sustainability requirements often become somewhat relaxed, an important difference is that the overall aim behind the sustainability standard remains intact. For example, the downgrading of excessive overtime from a red to an orange issue does not mean that they have given up on overtime compliance, but it has the effect of granting suppliers more time to resolve a complicated issue. Similarly, the waiving of the insistence for government permits does not imply that COSMOS accepts suppliers that are operating with inadequate safety standards because trusted third-party certification must be presented instead. Unlike suppression, contextualization entails the sustainability managers’ active involvement in developing workable solutions for their suppliers, and this will decrease the likelihood of suppliers hiding actions and faking compliance (Chung, 2015; Jamali, Lund-Thomsen, & Khara, 2017; Roberts, Engardio, Bernstein, Holmes, & Ji, 2006). Our data showed that sustainability managers were indeed committed to finding workable solutions for their suppliers and did not simply turn a blind eye when it became apparent that suppliers were struggling to comply with certain sustainability standards. In particular, we saw that middle- and low-level sustainability managers possessed highly detailed knowledge of the operational situation of their suppliers and were able to provide them with concrete and cost-efficient suggestions.

We argue that contextualizing helps managers to develop the capability to think paradoxically. First, this is because contextualizing can alleviate the tension experienced by both buying firms and suppliers, and reduce the urgency of “finding a way out” (Hahn *et al.*, 2015; Lüscher & Lewis, 2008). When tensions are eased, purchasing and sustainability managers will experience less emotional anxiety and will feel less obliged to resort to

adversarial sensemaking to resolve tensions (Smith & Lewis, 2011). Second, contextualizing involves developing a thorough understanding of the economic, institutional, and societal causes of sustainability tensions. Accepting that the tensions experienced in organizations are socially embedded (Hargrave & Van de Ven, 2017), the process of contextualizing and engaging with suppliers is essential if individual managers are to critically examine entrenched assumptions about the contradictory elements and develop a more accommodating understanding of the paradoxical tensions (Smith & Lewis, 2011). As our case showed, several sustainability managers at COSMOS, through engaging with suppliers to understand the root causes of the tensions and to seek cost-effective solutions, had started to see sustainability and business aims as potentially unifiable, rather than being strictly adversarial. For example, SM5, the supplier's sustainability expert for electronics products, suggested that reducing employee turnover could help suppliers reduce the costs of occupational health checks, thereby alleviating the tension between sustainability and cost efficiency. In contrast, several other sustainability managers, e.g., SM6, SM8, and SM9, had yet to develop such an accommodating understanding of the paradoxical tensions in SSCM, probably because they were relatively new to their positions and had limited engagement with suppliers and purchasing managers at the time of this study. This leads to our second proposition.

Proposition 4.2: Contextualizing sustainability standards can alleviate cost – sustainability tensions and create the necessary space for managers to change their adversarial sensemaking to a paradoxical approach by reducing, but not transcending, paradoxical tensions.

However, contextualizing might fail to bring about the substantial changes necessary to achieve “true sustainability” (Montabon et al., 2016) and transcending tensions by moving to a higher-order, overarching logic in which conflicting elements are understood to be interconnected and interdependent. The literature on paradoxical tensions (Andriopoulos & Lewis, 2009; Jay, 2013; Lewis, 2000) has highlighted the potential of paradoxical sensemaking for achieving this transcendence. Nevertheless, paradoxical sensemaking is extremely challenging, and we were only able to observe a few instances of truly synergizing responses in our case study. Such responses were largely restricted to pilot programs that aimed to increase employee satisfaction, reduce employee turnover, and improve productivity. Despite these programs being in an early stage, with unclear outcomes, it was apparent that the synergy being sought was based on sustainability being assimilated into productivity targets (and ultimately cost efficiency). Sustainability thus remains the subordinate element, albeit reframed in the logic of the dominant element, reflecting the strong asymmetry in systemic power (Hargrave &

Van de Ven, 2017). As Chinese suppliers (and not only in the consumer electronics industry) are still generally competing on the basis of the lowest cost (e.g., Global Manufacturing Competitiveness Index, 2016), it should be no surprise that the market logic is particularly pronounced in this context, and sustains the systemic power of cost in supply chain management. Under these conditions, it is questionable whether *synergizing* can bring about positive changes toward true sustainability (Markman & Krause, 2016; Montabon et al., 2016), as there is a real danger that any attempt at synergy will instead further cement cost as the dominant element. One can imagine a pessimistic scenario in which suppliers sacrifice their productivity improvements to meet cost reduction targets rather than investing resources in better labor and environment practices. We thus propose:

Proposition 4.3: If managers adopt paradoxical sensemaking, but systemic power is asymmetrically distributed, sustainability will be assimilated into the dominant business aims, and synergizing will not lead to true sustainability.

4.5 1 Contributions to theory

Our findings have several implications for advancing theory in SSCM and present an alternative to the dominant instrumental perspective on sustainability. We demonstrate the value of applying a paradox perspective to SSCM, arguing that this perspective is more sympathetic to the everyday struggles that managers face in seeking to integrate sustainability with other business aims, and identify several responses by purchasing and sustainability managers in dealing with the tensions between sustainability and other business aims in everyday practice. While our study is among the first to empirically apply a paradox perspective in SSCM, we also contribute to the general literature on tensions and paradoxes (Schad, Lewis, Raisch, & Smith, 2016). Researchers in this field have long highlighted establishing synergy as the most promising response in attempting to overcome tensions. However, an important contingency factor, the asymmetrical distribution of systemic power that arises from the specific institutional context, tends to have been overlooked. Here, we lend empirical support to the conceptual work of Hargrave and Van de Ven (2017) by highlighting the relevance of asymmetrical distribution of systemic power in the institutional context in which our case was embedded. More specifically, we argue that paradoxical sensemaking, with its resulting synergizing responses, will, under conditions of asymmetrical power distribution, lead to suboptimal results. That is, even if actors with limited systemic power (i.e., sustainability managers) are able to change their sensemaking approach, they are often in no position to initiate organization-wide efforts

to synergize the contradictory elements. Our empirical case study indeed provides evidence that paradoxical thinking does not always produce the most desirable outcome, and that more attention needs to be given to the distribution of systemic power that underlies tensions.

Besides demonstrating the need to include the distribution of systemic power when considering the paradox perspective, our study also questions the idea put forward in the paradox literature that paradoxical sensemaking by individual managers is a remedy for paradoxical tensions (Hahn et al., 2014; Smith & Lewis, 2011). While the literature promotes the transcending power of paradoxical sensemaking, it is silent about how this critical capability can be built up. Individuals have a natural tendency to cognitively resolve contradictions rather than embrace them (Festinger, 1962). We would argue that managers need space to develop paradoxical sensemaking without feeling the constant pressure to find “a way out” of fierce paradoxical tensions. Contextualizing can create this space by lessening tensions but does not resolve them. Moreover, contextualizing involves active engagement with suppliers through which managers can learn how to come up with creative practices and arrangements that embrace both sustainability and business targets. Thus, even though contextualizing might not in itself overcome the paradoxical tensions, it may equip managers with the necessary cognitive capabilities to do so in the future.

Our study also makes clear that radical change toward “true sustainability” is unlikely while systemic power favors business aims over sustainability aims. Unless systemic power is reasonably balanced between sustainability and cost, it is hard to see how more radical changes towards “true sustainability” can be achieved on the level of individual buying firms. While systemic shifts toward greater sustainability are visible in China, and reflected in increasingly strict labor and environmental laws (Egels-Zandén, 2014), it could still be some time before sustainability acquires sufficient systemic power. On a positive note, regional differences in law enforcement in China reveal that in economically more prosperous regions, such as Shanghai, sustainability increases in importance and has a role in economic development (Bush, Oosterveer, Bailey, & Mol, 2015). Although our case study has focused on China, it is very likely that the asymmetrical distribution of systemic power is more widespread.

Recent developments in the paradox literature (Hargrave & Van de Ven, 2017; Lewis & Smith, 2014) point toward “conflict” as a potential alternative strategy for those fostering innovation and transformation, when their initiatives are impeded by proponents of the status quo. Conflict is seen as potentially a superior alternative to synergizing under conditions of asymmetrical distribution of systemic power. The success of this response will depend on the

actors having the skills and resources needed to achieve institutional change, and it is also contingent on the extent of the resource dependence between proponents of conflicting elements (Hargrave & Van de Ven, 2017). Although the buyer's sustainability office was a corporate level department in our case study company, COSMOS's sustainability managers were still highly dependent on their colleagues in the purchasing function to exert influence on suppliers regarding sustainability claims. This might explain why we were not able to observe instances of conflict in our case company since the more that the proponents of contradictory elements need each other to accomplish their own goals; the less likely they are to engage in conflict (ibid).

4.5 2 Managerial implications

Beyond its theoretical contributions, this study has some practical implications for SSCM in emerging markets. Western buying firms, as influential stakeholders of suppliers in emerging markets (Lund-Thomsen & Lindgreen, 2014; Wu et al., 2014), play an important role in mitigating barriers to sustainability (Rauer & Kaufmann, 2015). Contextualizing has the potential to narrow the gap between socio-economic conditions in the supplier's environment and sustainability standards. Sustainability standards are often formulated in a universalistic way, and rarely consider the specific context. As a result, they become "cast iron rules" that "suffocate the creativity of adopters seeking to achieve an institution's goals" (Wijen, 2014). Contextualizing helps by assigning greater flexibility and creativity (Gilbert, Rasche, & Waddock, 2011) to adopters of sustainability standards who are committed to achieving the broad goals behind such standards (e.g., protecting the physical and economic wellbeing of workers, and ensuring safe factory buildings).

However, this is also a vulnerability of contextualizing in that it relies on the motives, judgments, and decision-making quality of individual managers who need to decide to what extent standards can be relaxed or contextualized without compromising their overall goals. If contextualization becomes too lenient, it approaches suppression, and will magnify rather than mitigate sustainability risks in supply chains. Thus, while it is important to equip sustainability managers with the necessary freedom to contextualize standards, it is equally important to preserve their integrity and understanding of the overall sustainability aims. Contextualization requires investments in human resources so that managers can develop a higher degree of

reflectivity about the consequences of their decisions while also being able to hold open and regular discussions about the overall sustainability aims.

Maybe, if buying firms are truly serious about challenging the current dominance of the cost logic, they need to consider radical organizational changes. Assigning greater authority to sustainability managers when it comes to dealing with suppliers will reduce their dependence on purchasing managers and might stimulate the use of the conflict strategy in responding to sustainability tensions.

This study shows that the asymmetrical distribution of systemic power between cost and sustainability has seriously constrained the managers' possible responses. As such, this study highlights the important role of government agencies in developing sustainable supply chains. Such stakeholders can help increase the systemic power of sustainability by developing and enforcing laws and regulations on environmental integrity and social equity. When sustainability has gained sufficient support from formal and informal societal institutions, both sustainability and purchasing managers will restrain from suppressing sustainability. More importantly, the synergizing approach, which in theory has the potential to resolve paradoxical tensions, will not be perverted into assimilation. This could lead to truly sustainable supply chains, rather than to merely less unsustainable ones.

4.5 3 Limitations and future research

We add two main caveats to this study. First, this study focused on buying firms and overlooked the role of suppliers in addressing sustainability tensions. As such, we would encourage future researchers to complement our study with the supplier's perspective and investigate how suppliers make sense of the actions of buying firms and respond accordingly. Moreover, we would encourage future researchers to take a "triadic" perspective to explore how buying firms (both their sustainability managers and purchasing managers) and suppliers interact in addressing paradoxical SSCM tensions. More specifically, we suggest using the purchasing manager – sustainability manager – supplier triad as the unit of analysis to understand how these actors interact in coping with paradoxical SSCM tensions. This triadic perspective has the potential to uncover intra- and inter-organizational dynamics regarding paradoxical tensions, which is crucial for understanding the effectiveness of the various possible responses to such tensions.

Second, China, as an emerging market, represents a rather unique research setting. As China emerges as an important economic power, it is attracting increasing attention and scrutiny over its labor and environmental practices from international institutions such as the United Nations, foreign governments including the USA and EU, and non-governmental organizations such as Greenpeace (Ngai & Chan, 2012). To cope with these stakeholder pressures and gain legitimacy, the Chinese government has updated its laws on labor practices and environmental protection to reflect international standards. However, this has created a substantial discrepancy between the formal laws and the socio-economic reality in China. Nevertheless, although the specific conditions of the Chinese socio-economic environment might differ from those of other emerging markets, the importance of contextualizing sustainability standards remains.

We would further encourage future researchers to take a longitudinal perspective to understand how paradoxical tensions are addressed in SSCM. As sustainability emerges as an increasingly important institutional logic in society, it will gradually gain more systemic power in the process of supply chain management. This dynamic change in the distribution of systemic power will have profound impacts on how individual managers respond to the paradoxical tensions that exist between sustainability and other business aims, and these changes could be captured in a longitudinal case study.

4.6 Conclusions

Sustainable supply chain management involves addressing paradoxical tensions (Hahn et al., 2015; Markman & Krause, 2016; Montabon et al., 2016; Pagell & Shevchenko, 2014). Such tensions are not necessarily detrimental to supply chain sustainability, but the ways in which buyers and suppliers respond to tensions can make the crucial difference between success and failure (Lewis, 2000; Montabon et al., 2016). Previous studies have too readily dismissed Western buying firms' responses to the sustainability tensions as no more than suppression (Huq et al., 2014; Locke, Amengual, & Mangla, 2009; Ngai, 2005; Ruwanpura & Wrigley, 2011; Yu, 2008). Our paradox perspective reveals a more nuanced picture and shows that sustainability managers in buying firms also engage with alternative responses in addressing sustainability tensions, most notably through contextualizing. By focusing on contextualizing, and its potential to help managers move from adversarial to paradoxical sensemaking, and ultimately towards "true sustainability", we hope to strengthen the role of the paradox

perspective as a valuable alternative to the dominant instrumental perspective in SSCM (Golicic & Smith, 2013).

Appendix 4A: Interview protocol

Part 1: General information about the interviewee and the corresponding commodity team

Career, current department, position and job description
What a role do you play in managing supplier sustainability?
Description of your commodity team (main commodities, strategic importance, suppliers' geographical distribution, etc.)

Part 2: Supplier sustainability management

1. Complexity of your supply base

Could you please describe your supply base in terms of number, geographical location, and heterogeneity of your suppliers?
Composition of your supply base in terms of strategic, key preferred, and commercial suppliers
To what extent are you sourcing from powerful suppliers with whom you have a high level of dependence but limited control? Examples

2. Sustainability-related risks within your supply base

What are the main sustainability-related risks within your supply base? (Relevant accidents or incidents that have caused negative publicity or/and supply chain disruptions)
What are the main challenges of managing supply base sustainability?

3. Supplier sustainability management

What a role does sustainability play in the processes of supplier selection and supplier evaluation in your commodity team? Please compare sustainability with other performance dimensions, such as price, quality and delivery. Do you perceive any tensions among them?
How is supplier's sustainability performance included in your KPI (key performance indicators)? How many of your suppliers have been included in the EICC supplier sustainability audit program? Why are these suppliers included this program?
Do you experience any significant difficulty in meeting all the purchasing requirements? What are the main challenges suppliers face when implementing EICC code of conduct? How do you deal with these challenges?
Do you experience any tensions in the process of managing supply chain sustainability? How do you deal with them?

4. Outcomes and adjustments

How have these strategies and practices improved your supply base sustainability performance? Could you please give a comparison between the suppliers that have participated in these programs and those suppliers that have not participated in these programs?
How are you going to adjust your strategies and practices of managing supply base sustainability to achieve better outcomes?