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Sustainability in multi-tier supply chains: Understanding the double agency role of the first-tier supplier

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ABSTRACT

In light of the growing complexity of globally dispersed, multi-tier supply chains, the involvement of first-tier suppliers has become instrumental in the quest for achieving sustainability compliance along the supply chain. We describe this new responsibility as the double agency role. We employ agency and institutional theory arguments to explore the conditions under which first-tier suppliers will act as agents who fulfill the lead firm's sustainability requirements (i.e., the primary agency role) and implement these requirements in their suppliers' operations (i.e., the secondary agency role). The findings from three in-depth case studies embedded in different institutional contexts highlight the importance for lead firms to incentivize each agency role separately and to reduce information asymmetries, particularly at the second-tier level. In addition, our inductive analysis reveals several contingency factors that influence the coupling of the secondary agency role of the first-tier supplier. These factors include resource availability at the first-tier supplier's firm, the lead firm's focus on the triple-bottom-line dimension (i.e., environmental or social), the lead firm's use of power, and the lead firm's internal alignment of the sustainability and purchasing function. We integrate our findings in a conceptual framework that advances the research agenda on multi-tier sustainable supply chains, and we subsequently outline the practical implications of assigning the double agency role to first tier suppliers.

1. Introduction

This paper brings to the fore the critical and rather neglected role of the first-tier supplier as a bridge between the buying company and upstream suppliers in disseminating sustainability standards along multi-tier supply chains (Grimm et al., 2014). Typically, the regulatory frameworks and guidelines for adhering to sustainability standards originate from the buying company and the institutional context within which the organization is embedded (Tachizawa and Wong, 2014). Therefore, in its quest for a transparent supply chain, the buying company would ideally like to monitor all the relationships with upstream suppliers independently. However, this is a complex and rather ambitious undertaking, given that these suppliers are often globally dispersed, are situated in remote locations, and may not have access to collaborative technologies. These conditions make the buying company lethargic in monitoring and nurturing the relationships further upstream in the supply chain, culminating in devastating consequences.

For instance, in 2007, Mattel had to recall toys that were coated with toxic paint (Hora et al., 2011). Their source was traced to a subcontractor of Mattel's first-tier supplier. In 2011, the Brazilian government listed 52 charges against Inditex, Zara's parent company, accusing it of sweatshop-like working conditions in the subcontractor's facilities of Zara's main supplier, AHA. Although Inditex argued that it could not be held responsible for AHA's unauthorized subcontracting, the Brazilian authorities responded that AHA was a logistical extension of its main client, Zara Brazil, and that because "(Zara's) raison d'être is making clothes (…) it follows that it must know who is producing its garments" (Burgen and Phillips, 2011). These incidents are responsible for the chain liability effect gaining currency in academic discourse, whereby nonadherence to sustainability standards across lower tiers in the supply chain culminates in negative publicity for global brands

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(Hartmann and Moeller, 2014).

It is estimated that the most serious environmental and social breaches are caused by sub-suppliers rather than direct suppliers (Plambeck, 2012). However, managing the sustainability of sub-suppliers is extremely challenging, as lead firms have inadequate information about their lower-tier suppliers (Choi and Hong, 2002) and, subsequently, limited means to exert control over them. Moreover, sub-suppliers are often small and medium-sized enterprises that are sheltered from the glare of the general public (Lee et al., 2012) and are, thus, far less exposed to institutional pressures. The aforementioned reasons indeed make a compelling argument for first-tier supplier's engagement with managing the sustainability standards upstream in the supply chain (Ayuso et al., 2013; Grimm et al., 2014). Little is known, however, about the conditions under which the first-tier supplier will actively pursue a role as a disseminator to "pass through" (i.e. communicate, train, and monitor) the sustainability standards of their customers to the next tier.

The main aim of our study is, therefore, to discern the conditions under which the first-tier supplier acts as an agent toward fulfilling the lead firm's sustainability requirements and implementing them in their suppliers' operations. We refer to this situation as "double agency." This is a complex undertaking, as these first-tier suppliers operate in different contexts and are exposed to conflicting trade-offs that dictate efficiency and legitimacy concurrently. It is this delicate balance that intrigues us and may result in a multitude of outcomes, including first-tier suppliers' complete defiance of the lead firms' requirements; merely ceremonial compliance with the requirements; or, in the best-case scenario, obedience and perfect compliance with the lead firm's sustainability requirements (Christmann and Taylor, 2006).

To answer this vexing question, we employ agency theory as our overarching theoretical anchor. We complement this with institutional theory arguments to provide a better understanding of how to create transparency in the supply chain, focusing on the critical role of the first-tier supplier in a multi-tier supply chain. Although multi-tier supply chains are better characterized as networks with vertical and horizontal linkages among actors (Choi and Hong, 2002), we operationalize them as a three-tier supply chain. This simplified operationalization enables us to gain a more in-depth understanding of the double agency role while taking the institutional context into account.

Our paper proceeds as follows. First, we establish the theoretical background of our study based on the literature on sustainability dissemination to suppliers and an agency perspective on sustainable supply chain management. Next, we discuss our methodology, which is followed by a comprehensive within- and cross-case analysis. This is followed by the development of a conceptual framework that leads to future research avenues and concluding remarks.

2. Theoretical background

2.1. The double agency role of the first-tier supplier in sustainable multi-tier supply chains

To be considered sustainable in the supply chain context, firms have to perform well in all three dimensions of the triple bottom line, focusing explicitly on social, environmental, and economic issues (Elkington, 1997; Klassen and Vereecke, 2012). Even though the triple bottom line has received criticism, including for the operationalization and non-summative nature of its three dimensions (see MacDonald and Norman (2007) for an overview), we use it as a guiding framework in our research because the concept is widely accepted in practice and is seen as a vehicle to achieve true sustainability in the long run (Wu and Pagell, 2011). As the emphasis on a particular dimension of sustainability is also contingent on the context (e.g., environmental concerns in the automotive industry, as opposed to social concerns in the apparel industry), this more holistic understanding of sustainability allows us to pursue a much-needed comparison of firms across industries. This is specifically the case because environmental sustainability is, in many instances, less context-dependent and easier to measure than social sustainability. For example, carbon footprints have an impact on the earth independent of where they are emitted. However, working conditions combined with different expectations from stakeholders may vary significantly, so that a 12-h work shift might be illegal in one country but socially and legally acceptable in another.

Rising external pressures to extend the triple bottom line to the supply chain level have shifted the focus toward the first-tier supplier as the disseminator of these standards in the quest for the creation and management of a sustainable multi-tier supply chain (Ayuso et al., 2013; Grimm et al., 2014). The first-tier supplier as an agent for the buying company may make critical decisions that may impact the sustainability considerations of the entire supply network. Such decisions could include the selection and deselection of suppliers and the alignment of processes according to customers' expectations (Choi et al., 2001). To better understand the important role of the first-tier supplier within this domain, we apply agency theory as our theoretical anchor.

Agency theory is concerned with problems that arise when one party—the principal—delegates work to another party—the agent (Eisenhardt, 1989; Jensen and Meckling, 1976). Central to agency theory are specific assumptions that also guide our research. The actions of agents are driven by self-interest and opportunism; therefore, it is difficult or expensive for the principal to verify what the agent is doing, which creates a risk for principals, particularly when there is high information asymmetry in favor of agents and goal conflict among members (Eisenhardt, 1988, 1989; Wright et al., 2001; Zsidisin and Ellram, 2003).

Based on an extensive literature review by Fayezi et al. (2012) on the use of agency theory in supply chain management and the screening of additional representative studies that take the unit of analysis beyond the dyad and/or specifically addressed sustainability, we found that scholars have not delved deeply into understanding the specific role of the first-tier supplier in disseminating sustainability standards. For example, Wiese and Toporowski (2013) argue that the complexity of food supply chains implies that lead firms need to rely extensively on their agents (i.e., the direct suppliers) for controlling sub-suppliers. However, this study is silent on the conditions under which the first-tier supplier actually accepts this responsibility and begins to manage sustainability considerations autonomously in their upstream processes. In a similar vein, Ciliberti et al. (2011) investigate how codes of conduct can help to reduce the information asymmetry that exists between principals and their agents. Although relations between chain directors (as principals) and both direct and indirect suppliers (as agents) are considered, no systematic contrasts between the management of these two types of relationships are drawn. Finally, Tachizawa and Wong (2014) identify contingencies to explain how and why firms engage in managing lower-tier suppliers in sustainable supply chains, which also includes the possibility that this responsibility is delegated to the first-tier supplier. Although the potential of agency theory is highlighted explicitly to better understand the delegated responsibility, the perspective that is taken is still that of the lead firm and the question of when and how it will delegate sustainability management upstream.

Typical agency theory constructs used in the literature are adverse selection, moral hazard, information asymmetry, and

incentive alignment (Eisenhardt, 1989; Fayezi et al., 2012). Adverse selection is a result of the misrepresentation of the ability of the agent, whereas the lack of the agent's effort to fulfill the principal's order results in moral hazard (Carter and Rogers, 2008). When it is difficult or expensive for the principal to verify what the agent is doing, information asymmetry arises. In our study, we will focus specifically on the two most prominently featured characteristics of the agency problem—information asymmetry and incentive alignment. We expect their importance to grow the more supply chains become vertically disintegrated and geographically and culturally dispersed (Cheng and Kam, 2008).

We are focusing on the first-tier supplier as a node between the lead firm and the extended network; therefore, the issue of agency becomes complicated due to the additional responsibilities delegated to the first-tier suppliers. To develop and explain our argument regarding the complex role of the first-tier supplier, we borrow the notion of double agency (Arthurs et al., 2008; Child and Rodrigues, 2003) from the corporate governance literature. Double agency refers to a situation in which the process of holding agents accountable for the attainment of goals involves two sets of control relationships (Child and Rodrigues, 2003). The double agency role encompasses both the first-tier supplier's responsibility to act as an agent toward the lead firm when implementing sustainability in its own operations (i.e., the primary agency role) and to act as an agent for disseminating sustainability standards to its suppliers' operations (i.e., the secondary agency role). This double agency role deserves closer scrutiny within a sustainability context, as the first-tier suppliers are the focal conduit in terms of both receiving exogenous pressure from the broader institutional context and the lead firm and transmitting it to the tertiary supply chain level (e.g., second- or third-tier suppliers). However, the current applications of agency theory have, for the most part, failed to consider the differences in institutional environments, thereby calling for a complementary perspective.

2.2. Double agency and institutional decoupling

The focus of our study is on sustainability; we are, therefore, cognizant that each organization is nestled in its institutional environment. This may influence how it responds to the pressure from its lead firm and the broader institutional context and may consequently influence how it channels that pressure further upstream. We, therefore, integrate ideas from institutional theory, which, together with agency theory, is often used to understand core issues in supply chain management (Ketchen and Giunipero, 2004). Within a sustainability context, even though organizations may be operating within the same institutional field, they have different sets of external constituents (e.g., competitors, regulators, and community groups) that exert institutional pressure. This pressure often results in the decoupling of an organization's adopted policies and actual practices (Boxenbaum and Jonsson, 2008; Meyer and Rowan, 1977). Decoupling occurs because, on the one hand, an organization is attempting to acquire legitimacy to conform to the demands of its institutional stakeholders, such as the lead firm and community groups, but on the other hand, it is constrained by the local circumstances, access to resources, and the requisite expertise (Bhakoo and Choi, 2013). According to Meyer and Rowan (1977), in the quest for legitimacy, an organization makes ceremonial or cosmetic changes in response to institutional pressure.

Decoupling is more complex and nuanced in multi-tier supply chains, as organizations may be embedded within different economic and cultural contexts, which may invoke divergent practices (Wijen, 2015). Within the environmental management context, Koh et al. (2012) highlight how environmental directives by the parent company cause “cross-tier ripples” across the supply chain. The authors develop a framework to illustrate that it is imperative to take a systems perspective and to strengthen collaboration amongst supply chain partners to embed environmental practices across the supply chain.

For first-tier suppliers that typically perform the double agency role, decoupling can occur at two levels. With regard to the primary agency role, the supplier firm might choose to either conform to the demands of its institutional stakeholders by implementing them in their daily routines and operations (e.g., Kostova and Roth, 2002), or it may make only ceremonial changes. The secondary agency role might become even more susceptible to decoupling as information asymmetry between the first-tier suppliers and their extended networks increases (Crilly et al., 2012). Even though a first-tier supplier might actually monitor the performance criteria of the second-tier suppliers, it is less likely to monitor their environmental and social conduct (Christmann and Taylor, 2006).

Our discussion has highlighted two major issues that require further exploration. First, under what conditions would first-tier suppliers comply with or decouple their primary and/or secondary agency role? Second, how can agency theory explain these outcomes when we move beyond the level of the dyad along multi-tier supply chains? In Fig. 1, we outline our basic conceptual model, which depicts our central theoretical constructs from agency and institutional theory. We aim to extend existing theories (Ketokivi and Choi, 2014); therefore, we have chosen an inductive qualitative research approach.

3. Methodology

Case research is especially preferable for theoretical development in research fields such as supply chain management (Meredith, 1998), as it allows for a more comprehensive understanding of the nature and complexity of a phenomenon. We chose a multiple case study approach and used several precautionary measures (e.g., Gibbert et al., 2008; Yin, 2009) to ensure quality and rigor.

3.1. Case selection

We used a multistep sampling process to select our cases (Siggelkow, 2007). As the delegation of sustainability management responsibilities to first-tier suppliers is a novel phenomenon, we deemed it important to choose a broad approach to capture the variety in how this role is likely to play out in different contexts. At the same time, we sought to distill patterns across contexts that can be used to build a consistent model of double agency in sustainable multi-tier supply chains.

We followed a similar approach to that employed in studies conducted by Pagell and Wu (2009) and Wu and Pagell (2011) and sampled firms from different industries by applying two criteria: first, we focused on industries in which a high variety of stakeholders exert consistently high levels of pressure that would require an alignment of sustainability along lower tiers of the supply chain. We selected food, consumer electronics, and apparel as the industries that are commonly objects of research on sustainable supply chains (Lee and Kim, 2009; Rv and Kolk, 2001; Yu, 2008). The different industry contexts of our selected cases allowed us to gain a more thorough understanding of the possible variances of the double agency role. Second, we identified industry leaders in sustainability by referring to the Dow Jones Sustainability Index, which captures both social and environmental sustainability criteria. We assumed these industry leaders to also be more active in disseminating sustainability in their supply chains, given that focal firms are increasingly held responsible for their sub-supplier action (cp. with chain liability effect, Hartmann and Moeller, 2014). We also double-checked the annual sustainability reports

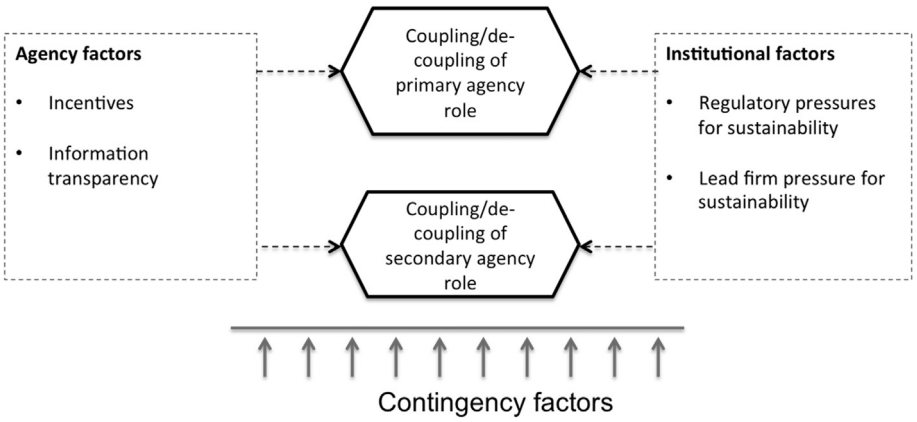


Fig. 1. Basic conceptual framework for understanding double agency in sustainable multi-tier supply chains.

of these firms to see whether they mention activities that aim to extend sustainability in their supply chains, which was the case in all the identified firms. As firm size has a significant influence on the extent of the formalization of management practices, we focused on large firms that are headquartered in Europe and have an annual turnover of over 2 billion euros. Based on these criteria, we identified 14 potential focal firms in the food industry, four in the consumer electronics industry, and six in the apparel industry. We managed to secure access to four of them to support our research project. Finally, we selected at least one major upstream supply chain—operationalized as a simple three-tier structure—for each sample firm. We decided to focus on product-related categories with a high purchasing spend, as these are more visible to the end consumer (as opposed to non-product-related categories) and warrant more effort in achieving sustainability. In total, we selected six supply chains of four focal firms for our study.

3.2. Data collection

For each supply chain, we interviewed at least one person in a boundary-spanning role from the lead firm—often the CPO or corporate sustainability manager—who helped establish contact with key informants for the selected purchasing categories. In turn, these informants helped with the identification of the first-tier supplier and with establishing contact with it. We decided to focus only on the most important suppliers, either in terms of purchasing spend or other strategic reasons given by the lead firm, as we assumed that these suppliers are more likely to be assigned a double agency role. We attempted to reduce social desirability bias through trust-building by guaranteeing to our interview partners that the results of this study would only be shared in aggregate form with their customers and that their details would remain anonymous in subsequent publications.

The main sources of data for our research were semi-structured interviews. It was crucial to select the right informants at the first-tier suppliers, as they needed to be able to reflect on the relationship with the lead firm and with the second-tier suppliers. As the role of a sustainability manager was often missing at supplier firms, we alternatively sought to interview informants who were knowledgeable about sustainability-related activities.

The interviews were conducted face to face or via telephone and generally lasted between 45 and 60 min. Prior to the interview, we asked the respondents to fill out a questionnaire to provide numerical information, such as the number of first- and second-tier suppliers they source from. Thereafter, all interviews were transcribed or were accompanied by comprehensive note-taking. Unclear issues were clarified in follow-up telephone interviews or emails. Table 1 provides an overview of the cases and interviews.

Furthermore, we used several alternative data sources for triangulation purposes (Jick, 1979): (1) corporate materials, including corporate sustainability reports, home pages, and other Internet sources; (2) documents provided from the interview partners, including audit templates and sustainability guidelines; (3) additional interviews with NGOs and multi-stakeholder organizations that are active in each of the industries to acquire a more in-depth understanding of the institutional context of each industry and its specifics regarding sustainability (see Table 3 for an overview); and (4) publicly accessible reports and statistics on the industry context. These additional data sources also helped us to validate the insights that we received from our main informants.

3.3. Data analysis

We began by writing up case histories for each supply chain (Eisenhardt, 1989), and we attempted to generate internally consistent descriptions of each case. As a result of this step, we decided to discard from further analysis the two sampled product categories from the apparel industry, as we found no indication of a double agency role: the lead firm directly selects, trains, and monitors the sub-suppliers. Furthermore, we decided to report on the cases for vegetables and dairy together, as they turned out to be similar (agricultural products), whereas the case of tea was quite distinct with regard to sustainability issues. In parallel, we worked on rich descriptions of the institutional setting of each case, based on the NGO interviews and additional material.

The next stage started with the open coding (Strauss and Corbin, 1990) of the interviews by grouping phrases, sentences, or paragraphs into codes and categories in an inductive fashion. Once we finished coding the interviews, we began with axial coding to generate more abstract codes and to delete and merge codes (Strauss and Corbin, 1990). During this stage, we started to connect our inductive codes to the established constructs, such as incentive alignment, information transparency, or institutional decoupling, in line with our aim of theoretical extension. Table 2 provides insights into how the different coding categories were developed.

The first author and two other authors went through the transcripts and coded them independently, using specific guidelines that were established through discussions and a review of the literature. Several rounds of discussions about deviating interpretations, unclear cases, and ambiguities ensued, and as a result, a high degree of consensus (95%), which we calculated using the Perreault and Leigh, 1989 procedure, was achieved.

Finally, we looked for commonalities and differences in our central constructs, patterns, and themes in a cross-case analysis

Table 1
Interview overview (*Buying firm location not further specified to guarantee anonymity of the focal firm).

Supply chain	Case	Share of low-cost country sourcing	Category description	Number of suppliers for category	Organization	Sales dependence on lead firm	Location	Informant(s)	Number of interviews
Vegetables	Agricultural products (AP)	>10%	**Canned vegetables**	–	**Lead firm Alpha**		**Europe***	**CPO, Head of Sustainability, Purchasing Managers**	6
			Processed vegetables	10	Alpha AP_T1_A	25%	Portugal	CEO, Supplier Manager	2
			Processed vegetables		Alpha AP T1_B	20%	North America	Corporate Quality Assurance Manager	1
			Vegetables (farm level)	1000–3000	Alpha AP_T2		Portugal/ North America		
Dairy	Agricultural products (AP)	0%	**Dairy**	–	**Lead firm Beta**		**Europe***	**CPO, Purchasing Manager**	3
			Processed dairy	60	Beta AP_T1_A	40%	France	CEO, Purchasing Manager	2
			Processed dairy		Beta AP_T1_B	20%	Netherlands	Key Account Manager, Manager Cooperative Affairs, Manager Global Sustainability Framework	3
Tea in bags and bulk	Tea	100%	**Tea**	–	**Lead firm Beta**		**Europe***	**Procurement Operations manager, Supplier Development Manager**	3
			Processed tea	350	Beta Tea_T1	60%	Kenya	Sales Manager, General Managers	3
					Certification body (Rainforest Alliance)	N.A.	UK	Manager Sustainable Agriculture Relations, Manager Tea East & Southern Africa and Asia	2
Consumer Electronics	Consumer Electronics (CE)	>90%	**Consumer electronics**	-	**Lead firm Gamma**		**Europe***	**Purchasing managers, Sustainability managers**	5
			Assembled parts	430	Gamma_CE_T1_A	50%	China	GM HR Manager, Sales Manager, Production Manager	4
			Assembled parts		Gamma_CE_T1_B	<10%	China	Management System Engineer, HR Manager	2
			Assembled parts		Gamma_CE_T1_C	<10%	China	General Management Assistant	1
			Assembled parts		Gamma_CE_T1_D	<10%	China	HR manager	1
			Assembled parts		Gamma_CE_T1_E	40%	China	General Manager, Quality Manager, HR Manager	3
			Assembled parts		Gamma_CE_T1_F	<10%	China	General Manager, HR manager, Production Manager, Administrative Manager, Key Account Manager	6
			Assembled parts		Gamma_CE_T1_G	40%	China	General Manager, General Manager Assistant, Management System Engineer	3

(Eisenhardt and Graebner, 2007), and we used Excel tables to compare several possible constructs (Miles and Huberman, 1994). From the emerging constructs, we pursued repeated iterations between the data, literature, and theory until a strong match between theory and data emerged, thereby strengthening the validity and reliability of the findings.

4. Within-case analysis

4.1. Agricultural products (AP)

4.1.1. Alpha vegetables

Alpha, a major European food brand, has codified its sustainability standards in a "sustainable agricultural farming manual," which restricts farmers to only 20% of the fertilizers and pesticides allowed by the EU. In addition, the manual regulates water usage, the use of appropriate seeds, food safety, personnel practices, GMO crop control, transportation, and farmer improvement. The manual is used as a basis for certification, which plays a greater role in procuring business than other industry-wide certifications (e.g., ISO 14000).

We investigated a supply chain for a type of vegetable that accounts for over 60% of Alpha's purchasing volume. The number of first-tier suppliers was recently reduced from 15 to 10. The majority of the suppliers are located in Southern Europe, with a smaller fraction in the US and China. We conducted interviews with two first-tier suppliers (Alpha AP_T1_A and Alpha AP T1_B), one of which is located in Portugal and the other in North America. Each

Table 2
Description of coding categories.

Coding category	Description
Regulatory pressures for sustainability	Instances in which the interviewees discussed external pressures stemming from the government, consumers, and other stakeholders within the direct institutional environment of the T1.
Suppliers' sustainability management competencies	Instances in which the interviewees discussed the required technical and managerial skills to train and assess the sustainability of the suppliers.
Incentives T1 for primary/secondary agency role	Instances in which the interviewees mentioned enhanced profitability, improved efficiency, new market opportunities, or reputational advantages resulting from implementing sustainability in T1 operations/T2 operations.
Available resources for primary/secondary agency role	Instances in which the interviewees mentioned finances, dedicated staff for sustainability, or extra time needed to make necessary changes to perform the primary/secondary agency role.
Power	Instances in which the interviewees discussed purchasing power, reputation, or dependency on other resources that one of the partners controls.
Information transparency buyer-T1/buyer-T2	Instances in which the interviewees assessed the degree to which they have sufficient insight into the sustainability-related behavior of the supplier.
Coupling of primary/secondary agency role	Instances that indicated that the T1 made real changes in its operations to comply with the sustainability requirements of the lead firm beyond the next audit, such as having a dedicated function for managing sustainability or installing a new management system with the aim of improving sustainability performance.
Decoupling of primary/secondary agency role	Instances that indicated that the T1 was making only cosmetic changes regarding the management of sustainability in its own and/or its suppliers' operations with the aim to pass the next audit but falls back into old practices between audit cycles.

Table 3
Institutional contexts of the three cases.

Case	Main characteristics of the institutional context	Main informant	Secondary data
AP (vegetables and dairy production in Europe)	The agriculture industry in Europe is characterized by a multitude of regulations concerning food safety, the responsible use of natural resources, and the living conditions of farmers and those who are employed in related sectors. For Europe, the 2002 European General Food Law (GFL) regulation sets control standards with regard to food and food product hygiene, animal health and welfare, plant health, risk prevention of contamination from external substances, and the appropriate labeling of food products. Regular reports on suffering animals kept in mass stocks and toxic pesticides in vegetables have led to growing consumer skepticism regarding the conventional agriculture industry. This skepticism is fueled by NGOs, such as Foodwatch and Fair Food, that direct public awareness to production methods and the safety of the food that is consumed.	**Fair Food International** Director Policy and Advocacy	**Research reports** (e.g. OECD, 2013; European Commission, 2013, 2014) **Audit templates**
Tea (tea production in Kenya)	Tea is almost entirely produced in developing countries and is highly vulnerable to market price fluctuations. At the same time, tea is a very labor-intensive crop, and plantations and small farmers employ thousands of workers to maintain and harvest their tea fields. Tea plucking is difficult and hazardous. Workers are on their feet for hours, carrying tea-collecting baskets on their backs, and the uneven terrain on which the tea is picked increases the risks of accidents. Other commonly observed problems, particularly among workers at large tea plantations, are wages below living standards, bad housing conditions, and the sexual harassment of female workers. Smallholder tea farmers mainly suffer from environmental problems, such as pesticide pollution and land degradation (erosion and deforestation). The root of these problems can often be found in weak social structures in Kenya, which is characterized by a low level of education among famers (some of them are illiterate) that often goes in line with the careless use of pesticides (without wearing protective gear) and natural resources. The low status of women in a patriarchic society makes them vulnerable to wage exploitation and sexual harassment. Due to the rising consumer demand for sustainably produced tea, a number of independent bodies, such as Rainforest Alliance, Fairtrade, and UTZ Certified, have certified the sustainable production of tea since the 1990s. These certifications are generally believed to be more rigorous than companies' own corporate social responsibility policies and include both social and environmental sustainability criteria. However, their emphasis can vary. Fair trade focuses on fair prices that cover the cost of production plus a premium, as well as adherence to ILO agreements, while the Rainforest Alliance emphasizes environmental sustainability and arresting the major drivers of deforestation and environmental destruction.	**Ethical Tea Partnership** President **Centre for Research on Multinational Corporations (SOMA)** Senior researcher **Wageningen University** Senior researcher	**Research reports** (e.g. United Nations Development Program, 2014; van der Wal (2011); Waarts et al. (2012) **Audit templates**
Consumer electronics (electronics parts production in China)	The high modularity of consumer electronics products has led to the fragmentation of the production process across different stages. Large global brands that are mainly based in developed economies, especially Europe, Japan, the United States, and recently Korea, act as lead firms that coordinate a network of contract manufacturers. Despite their typically large size, contract manufacturers that assemble products for lead firms often have limited market power, as they have to rely on the technological leadership and brand development of the lead firms. Contract manufacturers are mostly represented in emerging economies, such as China, where the staggering pollution in	**China Labor Watch** Program coordinator	**Research reports** (e.g. China Labor Watch, 2012; SACOM, 2012; Fair Labor Association, 2012; Zito et al., 2014) **Audit templates and reports**

(*continued on next page*)

Table 3 (*continued*)

Case	Main characteristics of the institutional context	Main informant	Secondary data
	industrial areas has led to a stricter enforcement of environmental laws. However, the enforcement of Chinese labor laws and regulations remains generally weak despite regional differences. Cities in the more industrialized areas in East China, such as Shanghai and Shenzhen, are known to be generally stricter in enforcing labor laws, particular regarding minimum wage, paid leave, and occupational health, but not overtime. In 2008, the Chinese government issued a new labor law, which specifies a maximum level of 36 h overtime each month, but high cultural and economic incentives remain for both contract manufacturers and workers to maintain high levels of overtime. Regional labor market shortages make it difficult for suppliers to hire additional workers. Moreover, the minimum wage, which is not regulated on a nationwide basis but set for individual cities, provinces, and other administrative units by their respective local governments, is still generally low, creating high incentives to work overtime.		

supplier sources raw vegetables from approximately 100 to 300 farmers. Most second-tier suppliers are large professional farmers with land sizes of over 10,000 acres. Their sustainability capabilities were generally assessed to be very high by the lead firms, particularly those of US suppliers that have installed new technologies, such as computer-controlled irrigation and GPS/GIS technology, to manage fertility according to the potential productivity of a field and thereby reduce the application of fertilizer.

To improve their understanding of the product and its manufacturing processes, purchasing managers from Alpha regularly invite their key suppliers to their facilities and visit the fields of the top farmers with them. Both interviewed first-tier suppliers understood that the processes at the farm level are essential for making a real impact regarding sustainability, as the potential for energy reduction are larger there than at the manufacturing level. The first-tier suppliers were very proactive in initiating meetings between farmers and the lead firm and inviting farmers to their own manufacturing facilities to enable them to gain a better understanding of the whole supply chain, including the final processing steps. Moreover, both Alpha and the two first-tier suppliers employ their own teams of agronomists who are specialists in their respective vegetables.

Alpha reviews sustainability at the first-tier level as part of a product and process quality audit that takes place once per year at all first-tier facilities. Both first-tier suppliers are active regarding sustainability beyond the relationship with the customer, are engaged in industry initiatives and roundtables, and have set up their own programs to improve environmental performance. Three to four times a year, the suppliers audit the farmers' compliance regarding specified sustainability indicators, such as the type of seed or the amount of water used, and this is based on field visits. They also check the field book documentation of these farmers' metrics. In addition, the first-tier suppliers take samples of all the farmers' deliveries, which external laboratories then check for pesticides. Alpha only checks field books in cases of irregularities, and first-tier suppliers can be made accountable for incomplete or false information from second tiers.

4.1.2. Beta dairy products

Similar to Alpha, Beta has formulated strict sustainable agricultural standards. Beta sources dairy products, such as processed milk, cream, and butter, from about 20 large cooperatives in addition to another 40 privately owned firms that are largely based in Europe. The cooperatives and firms source raw milk from about 100,000 smaller privately owned farmers. We conducted interviews at one privately owned dairy processing firm in France (Beta AP_T1_A) and one Dutch cooperative (Beta AP_T1_B) that has 15,000 member farms and processes milk in its own factories.

Both first-tier suppliers are already quite advanced with regard to setting up their own sustainability programs and are engaged in industry initiatives beyond the relationship with Beta. A strong indication of their commitment to sustainability is that the suppliers specified the lead firm's requirements for general animal husbandry for its dairy supplying farms regarding regular checks of cow alimentation, measures to prevent mad cow disease, sick cow isolation, and maintenance of the farm's surrounding area long before Beta issued an implementation guide for its sustainable agricultural code for dairy farming.

The Dutch cooperative is particularly active, as it has recently revised its sustainability program to offer higher incentives to farmers to increase their sustainability efforts. Basic requirements related to hygiene, the quality and safety of milk, feed and water, as well as animal health and welfare are defined, and these are based on EU regulations and sector agreements with other dairy firms and the farmers' union. In addition, natural grazing is stimulated by offering a financial incentive for milk from cows that have grazed at least 120 days for at least six hours per day. As a third pillar of the program, the cooperative introduced a reward system for sustainability development: a premium is paid for above-average performance measured according to six predefined KPIs related to animal health and welfare, biodiversity and the environment, and climate and energy.

Both first-tier suppliers are fully responsible for implementing and ensuring sustainability at the second-tier level and auditing the implementation of sustainable agricultural codes at the farmer's level. However, the Dutch cooperative delivers milk to more than one major food brand and is less sales dependent on Beta (approx. 20% of the production volume) than the French supplier (40%). While the managers at Beta see great advantages to collaborating with the Dutch cooperative to reach the whole supply base, our informants at the cooperatives emphasized that it is the farmers who own the company, that they need to be convinced, and that standards cannot simply be imposed on them. One particular challenge is that the different customers' sustainable agricultural standards do not completely overlap, and lead firm-specific requirements exist regarding, for example, the number of days of natural grazing for cows. The cooperative was, however, able to achieve an agreement with most of its customers to accept its own audits as a substitute for customer audits, and there are ongoing negotiations with Beta to do the same. The cooperatives also extended the collaboration with Beta for sustainability beyond the implementation of the code by initiating a joint project to reduce greenhouse emissions in one of Beta's dairy-processing factories, for example, by using industrial waste to generate energy.

4.1.3. The double agency role of the first-tier supplier and institutional decoupling

In both supply chains, we found evidence for a high level of commitment to the sustainability requirements of Alpha's and Beta's first-tier suppliers. The purchasing managers of both companies highlighted that the geographical location of the major supply base in Europe contributes positively to the sustainability practices of first-tier suppliers, as there are already a number of safety and environmental regulations and institutionalized control mechanisms behind them.

All the investigated suppliers in both the supply chains went beyond regulations and defined sustainability as a part of their competitive strategy. As a result, they all developed their own sustainability programs for sub-suppliers, leading to a high degree of coupling of the primary agency role. The challenge for the Dutch cooperative in the dairy chain was, however, to align the specific requirements of its various customers. Beta was not the most important customer in terms of sales; therefore, the lower power asymmetry allowed the cooperative to openly negotiate with Beta which requirements could be met and in which areas a compromise should be sought. The information asymmetry between the lead firm and the first-tier suppliers was low throughout the cases: the lead firm conducts regular visits at the first-tier supplier's processing factories and audits them annually. Furthermore, incentives for the first-tier supplier's sustainable behavior are mainly given through continued and increased business, as both focal firms seek to consolidate their supply chains.

We also found indications of substantive engagement in their secondary agency role, albeit with some variations. All the investigated first-tier suppliers possess considerable expertise in farm processes, as they employ a substantial number of agronomists, outnumbering those at the lead firm. In the dairy industry, the first-tier suppliers were often able to use sustainability as an important criterion in price negotiations to justify higher prices. This is particularly relevant in light of the abolition of the European milk quota in 2015, which is expected to lead to decreasing milk prices. At the same time, the lead firm, Beta, needs to collaborate with its first-tier suppliers if it wants to achieve the aim of sourcing all raw materials sustainably by 2020 and disseminating its sustainable agricultural standards across its large supply base. Both first-tier suppliers independently conduct their own audits at the farm level and monitor the farm books. Information asymmetry between the lead firms and the second-tier level is low, as the lead firms employ their own agronomists, who visit the fields regularly to perform quality checks and to offer support. Moreover, compliance with sustainability can easily be measured in the end product (e.g., the use of illegal pesticides) and is well documented in the field books (e.g., water usage), as the focus of sustainability in the agricultural industry is primarily on the metrics of environmental sustainability.

It can, thus, be summarized that strong regulatory pressure and high internal incentives for the efficient use of natural resources, coupled with higher attainable market prices for sustainable farming products and incentives to become a strategic supplier in a consolidated supply chain, lead to favorable conditions for pursuing a double agency role. These conditions are further enhanced through low information asymmetry along the multi-tier supply chain.

4.2. Tea

4.2.1. Beta tea

The lead firm, Beta, sources tea from traditional tea-growing countries, such as Indonesia, India, Sri Lanka, and Tanzania. In Kenya (the geographical area for which our interview partners are responsible), tea is sourced from approximately 40 tea-processing firms, agents, and auctions that source tea leaves from up to 600,000 small farmers. In some cases, tea is sourced directly from larger tea estates, thereby causing the distinction between the first and second tiers to become blurred. In the past 5 years, Beta has shifted purchasing volume from auctions to sourcing directly from farmers or through agents. In addition to greater transparency concerning the origin of the tea, a major reason for this change is that the company gains the ability to offer economic incentives to implement sustainability practices.

Beta introduced the Rainforest Alliance certification for its tea brand in 2010, with a target to source all tea from certified farmers by 2015. An important step in the certification process is the training of all farmers who deliver to processing plants. To achieve this aim, Beta collaborates with a large cooperative of about 500,000 smallholder farmers (Beta Tea_T1). The cooperative owns 65 processing plants, each of which receives tea leaves from approximately 8000 farmers. As prices for noncertified teas are determined by auctions, the tea cooperative has high incentives to achieve certification for its plants, as sustainability is an order-winning criterion that initially allowed for a premium price. Although the premium for certified tea has been abolished, the farmers have been able to improve their productivity and tea quality as a result of the training, thereby resulting in lower tea rejection rates at the factory. Another positive effect that has accompanied this certification is the improvement of relations, as farmers are now better able to understand the quality requirements of the factories.

Financial support for training is provided primarily by Beta but also by other sources, such as regional development funds. At the outset, Beta trained its own agronomists in Kenya to help ensure that they meet the Rainforest Alliance standards. Subsequently, the agronomists of the tea cooperatives who were trained then, in turn, trained the so-called lead farmers, who are usually the farmers who have above-average tea management capabilities. The lead farmers, in turn, train the farmers in the sustainable agriculture standards and conduct internal inspections at the farm level prior to carrying out audits. Rainforest Alliance certification is awarded to a factory after a positive group audit in which a sample of farmers is audited. Certification is valid for three years, but annual reaudits take place.

In 2015, Beta achieved its target of certifying all its farmers. The collaboration with the tea cooperative and Rainforest Alliance became stronger with the initiation of so-called farmer field schools, which aimed to provide more comprehensive training in sustainable agriculture. These field schools aimed to increase farmers' livelihoods and enhance their understanding of the ecological and agronomical reasons for implementing sustainability practices. By the end of 2015, about 20% of the farmers will have participated in the training, but the demand for the training is higher than the available capacity.

4.2.2. The double agency role of the first-tier supplier and institutional decoupling

The highly fragmented supply chain and its developing country context create particular challenges for the lead firm regarding its efforts to achieve a holistic implementation of sustainability. Nevertheless, Beta achieved suppliers' compliance with its sustainability targets by choosing to cooperate with one large tea cooperative and sourcing tea directly from it rather than through auctions. Goal alignment is achieved through incentives to improve the financial performance of farmers but also through the fact that Beta is an important buyer for the tea cooperative that purchases about 60% of its output. At the same time, Beta also sources 50%–60% of its tea through the cooperative, and because it has

advertised a 100% certification rate for its tea, it is also dependent on a strong partner. The peculiar structure of the Rainforest Alliance scheme, whereby plants receive certification only when their supplying farmers are audited positively, creates strong incentives to fulfill both the primary and secondary agency roles. However, the absence of a premium for certified tea that was paid only in the first 18 months after the initial certification is a recurring point of dispute between the factory management and farm levels. Nevertheless, in the farmers' view, the benefits of certification seem to outweigh its costs, as the board representing those factories that do not deliver tea to Beta uniformly decided to obtain Rainforest Alliance certification.

Due to the collaborative nature of the partnership between Beta and the tea cooperative that started in 2007 and the regularity of interactions that take place at least every week, the lead firm possesses good insight into the processes at the plant level, thereby leading to high information transparency. Moreover, as tea is a natural product that is sensitive to weather conditions, tea buyers visit farmers' fields frequently. Tea buyers need to be knowledgeable regarding the subtle quality differences in the product they purchase, and they have also received training that sensitizes them to sustainability issues. In cases of irregularities such as the use of pesticides, or missing waste management at the farm, they contact the respective manager directly.

These incentive structures and the high level of transparency lead to a coupling of both agency roles, at least with regard to environmental sustainability, which is the primary focus of Rainforest Alliance certification. This is also reflected in the number of process changes that the tea cooperative made in its operations, such as hiring additional agronomists who are responsible for farmers' training to increase the ratio to 1:2000 farmers. It remains less clear, however, which improvements are made regarding social sustainability. Beta was repeatedly attacked by an NGO in 2008 and 2011 for the inhumane living conditions of casual workers and for problems related to the sexual harassment of female workers at a tea plantation. One informant also pointed out that farm workers are often paid below the minimum wage, as governmental controls are missing. Although auditing standards include social issues, the NGO argued that these norms were not interpreted strictly enough and that auditors were not sufficiently sensitive during the process.

4.3. Consumer electronics (CE)

4.3.1. Gamma consumer electronics

Gamma initiated its supplier sustainability development program in 2007 with the aim of improving its suppliers' compliance with the Electronics Industry Citizenship Coalition (EICC) codes of conduct. The EICC codes specify requirements regarding labor practices, health and safety, environmental sustainability, management systems, and ethics. Gamma has set a target for itself that in 2015, 80% of its first-tier suppliers should be compliant with the EICC codes of conduct. To achieve this target, Gamma runs a supplier sustainability office with eleven sustainability experts, eight of whom are located in China. Each expert is responsible for the sustainability performance of a group of suppliers. The office provides training to help suppliers better understand EICC requirements. Audits take place every three years and are carried out by a third party.

We investigated the supply chain for preassembled parts and components for CE. Parts for CE are sourced from over 400 first-tier suppliers, of which 60 are classified as important. Audits are conducted for many suppliers that are located in so-called high-risk countries, such as China and India, and/or when the purchasing spend exceeds one million euros. We investigated seven first-tier electronics component suppliers within this supply chain, and all were based in one of the three highly industrialized Chinese cities: Shanghai, Shenzhen, and Kunshan. In all but one case (Gamma CE T1_D), business relations with suppliers have existed for more than five years. It is noteworthy, however, that orders can fluctuate massively over time, thereby indicating the ease with which the lead firm is able to switch suppliers.

Gamma's sustainability program is enforced primarily through the use of purchasing power, as suppliers have to sign the EICC code of conduct as a condition for business. Our interviews with the first-tier suppliers revealed, however, that most of them were facing initial difficulties with regard to meeting the EICC requirements with which they were unfamiliar. The suppliers who failed the first round of audits often hired external consultants who helped them to pass the audits. The audit reports reveal, however, that excessive overtime remains a persistent issue. Gamma's supplier sustainability audit template specifies "average hours worked in a workweek over the last 12 months shall not exceed 60 h or the legal limit." The legal limit for overtime of 36 h is, however, never controlled by local agencies. Furthermore, the first-tier suppliers are often confronted with conflicting demands from the lead firm: whereas the sustainability officer is mainly concerned about compliance with the EICC standards, the purchasing manager places last-minute orders and emphasizes on-time delivery, both of which result in overtime for production workers. Only one of the seven suppliers we investigated (Gamma_CE_T1_G) made substantial changes in its organization to overcome this conflict by redesigning its HR system, establishing an internal audit system, hiring additional staff to be put in charge of sustainability, and, most importantly, recruiting additional workers. These operational changes resulted in additional costs that had to be carried by the supplier. It thus appears that most other suppliers still decouple some of their actual practices—notably those regarding overtime—from the EICC standards.

In 2013, Gamma introduced the responsibility of managing the sustainability of its next-tier suppliers as an audit criterion for its first-tier suppliers. The first-tier suppliers need to provide evidence that "the EICC code requirements have been communicated to the next-tier suppliers" and that "an effective process to ensure that the next-tier suppliers implement the code is in place." (Gamma supplier sustainability audit template). In the majority of the cases that we observed, the first-tier suppliers restricted their activities to merely informing suppliers about the EICC requirements but did not see it as their responsibility to actually monitor compliance. One major reason for the first-tier suppliers' reluctance to become more active at the second-tier level was the lack of resources. Unlike the lead firm, the first-tier suppliers had no dedicated sustainability manager and assigned these responsibilities to the general manager and the operations manager. Gamma_CE_T1_F, for example, has a team of three management systems engineers who are already overburdened with implementing ISO 9001, ISO 14001, and industry-specific requirements, such as ISO/TS16949 for the automotive industry.

In addition, the lack of bargaining power was identified by all suppliers as another factor that hinders their efforts to actively carry out their secondary agency role. There was often a dependency on a few second-tier suppliers who were able to fulfill the quality standards and offer low prices simultaneously. In some cases, the second-tier suppliers were bigger than the first-tier suppliers, and the share of sales that went to the former was small. The respondents from the first-tier supplier firms were, thus, aware of the fact that sustainability performance is oftentimes unsatisfactory at the level of the second-tier supplier, but they neither intervene nor share this information with the buying company for fear of losing their cost advantages. The only notable

exception was again the one supplier (Gamma_CE_T1_G) that demonstrated substantial commitment to the primary and secondary agency roles. Four of the suppliers in its supply base are steel giants that refused to sign the code of conduct. For the remaining suppliers, the first-tier supplier conducts sustainability audits every two years for which it also covers the costs, as the second-tier suppliers are not financially strong enough.

4.3.2. The double agency role of the first-tier supplier and institutional decoupling

Although all the investigated suppliers in the CE supply chain have formally passed the audit, the majority of Gamma's suppliers in China followed a mostly ceremonial adaptation of their primary agency role. There are no incentives provided for sustainability, as most of the required measures incur costs that are not compensated by the lead firm. It is, therefore, hardly surprising that most suppliers' actual practices are often decoupled from the requirements of their customers.

We found even stronger evidence of the decoupling of the secondary agency role. This was mainly because the lead firm has limited information regarding the sustainability practices of the second-tier suppliers. Although Gamma's commodity teams have recently begun to extend their reach to the second-tier level, the main focus of their activities lies on quality, cost, and on-time delivery. Issues of sustainability are, however, handled by Gamma's sustainability office, whose staff does not interact directly with these suppliers. As a result, the decoupling of the secondary agency role was deliberate, as the first-tier suppliers often lack the bargaining power to push for the necessary changes. In addition, the first-tier suppliers have few resources available to engage with the secondary agency role. The respondents from the first-tier suppliers were often aware that the second-tier suppliers were unable or unwilling to fulfill the EICC standards, and the sustainability pressure did not disseminate upstream.

5. Cross-case comparison

We used central agency theory-related variables—that is, incentive structures and information transparency—and complemented them with institutional decoupling arguments to structure our cross-case analysis, as shown in Table 4.

As highlighted in Table 4, suppliers in the AP and Tea supply chain were clearly the exemplars for the coupling of the primary agency role, as they all made requisite changes in their operations—such as creating an internal audit system or employing dedicated experts for sustainability—that confirm a more substantial adaptation of this role. However, the mechanisms that led to the desired outcome differed. In the AP case, the regulatory pressures for sustainability emanating from the institutional environment were predominantly responsible for the coupling of the primary agency role. Contrastingly, the Tea case demonstrates that the coupling of the primary agency role is still possible when regulatory pressures are limited but are supplemented by strong agency factors, such as high information transparency. This transparency is based on the frequent sustainability-related interaction between the lead firm and the first-tier supplier that extends beyond audits. In both cases, strong incentives were also given to the first-tier supplier to make substantial changes because sustainability is an order-winning criterion that is supported by opportunities for business growth. These incentives were particularly effective in compensating for the limited regulatory pressure in the Tea case, as sustainability created positive outcomes for the tea cooperative, such as higher quality, more stable prices, and improved relations between the factories and farmers.

The CE case was substantially different from the Tea and AP cases, as the lead firm mainly exerted buying power to enforce the sustainability compliance of its Chinese suppliers. However, unfavorable incentive structures, weak regulatory pressure, and high information asymmetries created unfavorable conditions for the coupling of the primary agency role. The day-to-day interactions with the lead firm mainly took place with Gamma's commodity teams, which followed up on prices, quality, delivery, and product development. The sustainability office, which remained largely invisible to suppliers, tracked suppliers' sustainability performance in an independent database. This facilitated the decoupling of the actual supplier practices from the lead firm requirements, and, in particular, the prickly issue of excessive overtime, remained “a hard neck to break,” as an honest confession by the sustainability manager of Gamma revealed. As overtime was not monitored by local labor bureaus, leeway for suppliers to decouple actual practices from formal rules remained.

Moving onto the secondary agency role, both the AP and the Tea cases again demonstrated a high degree of coupling, as the first-tier suppliers were driving their own sustainability management program and hired their own experts, in the form of agronomists, to manage sustainability at the second-tier level. Agency theory again provides the strongest explanation for coupling at this level. On the one hand, the first-tier suppliers were able to convincingly convey the economic benefits of sustainable agriculture in terms of higher attainable market prices and the improved productivity of their farmers. On the other hand, there was high information transparency between the lead firm and the second-tier supplier, as the lead firm employed agronomists who regularly visited the field and conducted trainings with the first-tier suppliers. Due to the nature of the products, the purchasing managers are also in direct contact with the field and are conversant with sustainability matters. However, we noticed variations in the outcomes as one first-tier dairy supplier was able to negotiate the specifics of the sustainability requirements for the farmers and was very proactive in defining and auditing standards itself, whereas the tea cooperative was forced to comply with the conditions that were presented to it by the lead firm. Further probing in the interviews revealed that the power asymmetries between the lead firm and the first-tier suppliers shaped the dynamics of the relationships differently across cases. For example, the tea cooperative and some of the CE suppliers demonstrated a high sales dependency on the lead firm and possessed no countervailing power to negotiate the details of the sustainability requirements. Another interesting observation in the Tea supply chain is the involvement of a global NGO that was in charge of conducting part of the training and auditing. The collaboration with a third party as a more sympathetic body that can mediate between the interests of the suppliers and the lead firm also increased the chances of coupling despite difficult institutional conditions and a complex supply chain structure with a high number of smallholder farmers at the second-tier level.

In stark contrast, the CE case demonstrated the decoupling of the secondary agency role, mainly due to negative incentive structures, as disseminating and monitoring sustainability at the second-tier level would incur additional costs. Moreover, there was a lack of alternative supply sources, as only few second-tier suppliers can fulfill the cost and quality requirements. Power asymmetries were also shaped unfavorably as, in some instances, the second-tier suppliers were larger in size than the first-tier suppliers and were often unable to simply pass on the lead firm's requirements. Finally, information transparency between the lead firm and the second-tier suppliers was high, as there was only sparse interaction, which was mainly about issues related to the purchasing process but not to sustainability.

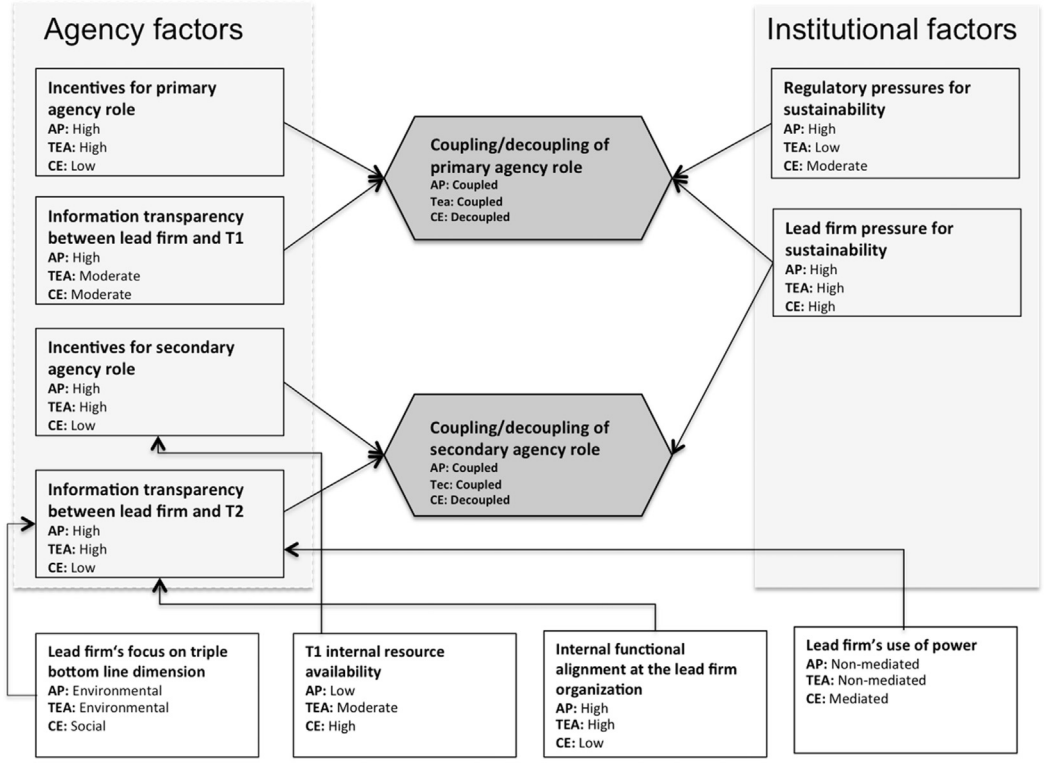
Table 4
Cross-case analysis.

	Institutional factors	Agency factors at primary agency level	T1 compliance with primary agency role	Agency factors at secondary agency level	T1 compliance with secondary agency role
Agricultural products	▪ High regulative pressures for social and environmental sustainability	**Information asymmetry lead firm-T1** ▪ Annual audits of T1 factories through lead firm ▪ Regular meetings between lead firm and T1 on sustainability-related matters **Incentives for T1 for primary agency role** ▪ As the supply chain is further consolidated, sustainability is becoming an order-winning criterion ▪ Sustainable farming justifies higher prices	***COUPLED*** ▪ T1 has made substantial changes to its own operations beyond audits	**Information asymmetry lead firm-T2** ▪ Agronomists of lead firm regularly visit main farmers and have good insights into farmers' facilities ▪ Extensive documentation through farmers' field books and the use of forbidden pesticides can be detected through sample checks **Incentives for T1 for secondary agency role** ▪ Cooperation structure aligns incentives for primary and secondary agency roles	***COUPLED*** ▪ T1 has set up its own sustainability management program, creates an incentive system for T2, and specifies the sustainability requirements of the lead firm into operational guidelines for T2 ▪ T1 employs dedicated staff for the sustainability management of T2
Tea	▪ Sustainability pressures mainly stemming from lead firm ▪ Weak regulatory pressures in the direct institutional environment of T1	**Information asymmetry lead firm-T1** ▪ Regular sustainability review meetings between lead firm and T1 plant management **Incentives for T1 for primary agency role** ▪ Sustainability is an order-winning criterion at the plant level and allows for higher margins through improved productivity and tea quality	***COUPLED*** ▪ T1 has made substantial changes to its own operations beyond customer requests as it extends activities to plants that are delivering other customers	**Information asymmetry lead firm-T2** ▪ Due to the nature of tea (quality can fluctuate weekly), purchasers regularly visit tea farmers and are sensitized regarding sustainability issues **Incentives for T1 for secondary agency role** ▪ T1 and T2 certification are interlinked as certificates are awarded at the plant level and require positive audits of all farmers	***COUPLED*** ▪ T1 makes major investments to implement sustainability at T2 level
Consumer electronics	▪ Sustainability pressures stemming from major lead firms (industry-wide code of conduct) ▪ Selected regulatory pressures from institutional environment of T1	**Information asymmetry lead firm-T1** ▪ Sustainability officer mainly visits suppliers in preparation for audits that take place every three years **Incentives for T1 for primary agency role** ▪ Sustainability is an order-qualifying, not an order-winning, supplier selection criterion ▪ Costs for audits and implementation have to be carried by the supplier	***DECOUPLED*** ▪ Suppliers have learned how to pass audits but fall back into old practices between audit cycles	**Information asymmetry lead firm-T2** ▪ Lead firm possesses no information on T2 sustainability compliance, and interaction with T2 level takes place with commodity teams who do not track sustainability metrics **Incentives for T1 for secondary agency role** ▪ Lack of alternative low-cost supply sources and limited internal resource availability for carrying out additional sustainability management tasks	***DECOUPLED*** ▪ Although T1 monitors T2's product quality, sustainability requirements are not enforced and monitored; T1 has insights into T2's sustainability performance (and is aware of noncompliances) but does not share this information with the lead firm

6. Discussion

Our study sought to unpack the mechanisms and contingencies that underlie the double agency role. Based on the key findings of our inductive case study, we revisit our conceptual framework. Fig. 2 enables us to understand when the flow-through effect of sustainability actually takes place, and it depicts the conditions for the primary and secondary agency role and the intervening contingencies across all three cases. We confirm that agency factors exert positive effects on coupling: incentives are effective at both agency levels, whereas the importance of information transparency increases at the level of the secondary agency. This seems logical, as there is naturally a lack of direct interaction between the lead firm and the second-tier level; this increases the risks of supplier opportunism, which needs to be alleviated through increased efforts to improve supply chain transparency. We can also confirm that institutional factors exert positive effects on double agency. We suggest that these effects are weaker than for agency factors, however; as the tea case showed, coupling can still occur when agency factors compensate for the absence of regulatory pressures for sustainability. Moreover, we found several contingency factors that have a particularly positive effect on the coupling of the secondary agency role. In the remainder of the discussion, we will elaborate on these factors.

Our approach to considering the dimensions of the triple bottom line simultaneously revealed interesting differences between social and environmental sustainability with regard to double agency. We validate the earlier observation that the "more process-driven nature of environmental sustainability makes it easier to put into supply chain practice" (Ashby et al., 2012: 497), and we confirm its immediate link to cost reduction and quality improvements (see also Rao, 2002), as seen in our AP and tea cases, which



Legend

Categorization of agency factors

Information transparency lead firm T1/T2 level

High:
- Regular sustainability related interactions between sustainability experts of lead firm and T1/T2 beyond audits
- Sustainability metrics can be traced in the end product

Medium:
- Interactions between lead firm and T1/T2 regarding sustainability focus on audits and preparation for audits
- Sustainability non-compliances can be detected during audits

Low:
- No sustainability related interactions between lead firm and T1/T2
- Sustainability non-compliances are hard to detect even during audits

Incentives for double agency role

High
- Sustainability is an order winning criteria and can help to generate more business with the same or other customers and/or negotiate higher prices
- Sustainability is linked to efficiency gains and/or productivity improvements
- Monitoring sustainability of T2 would lead to additional financial/ reputational benefits of the T1

Medium
- Sustainability is an order-qualifying criteria but does neither result in additional business nor costs
- Monitoring sustainability of T2 would neither lead to additional benefits nor costs for the T1

Low
- Sustainability is an order-qualifying criteria but is linked to high implementation costs
- Monitoring sustainability of T2 would cause high costs and/or problems to find alternative supply sources

Categorization of institutional factors

Regulatory pressures for sustainability

High: Strict enforcement of local laws

Medium: Enforcement of local laws varies between regions, sustainability issues, and/or suppliers' financial situation

Low: Local laws on social and environmental issues exist but enforcement is generally weak

Lead firm pressure for sustainability

High: T1 is facing pressure for sustainability from the majority of its customers **Medium:** T1 is facing pressure for sustainability from only one or few customer(s)

Low: T1 is facing no pressure for sustainability from its customers

Categorization of contingency factors

Lead firm's focus on triple bottom line dimension

Social: Emphasis is put on compliance with local labor laws, health & safety, and labor workers' well-being etc.

Environmental: Emphasis is put on sustainable and efficient use of natural resources, avoidance of toxins and pesticides, reducing carbon footprint etc.

T1 internal resource availability

Low: T1 does not have sufficient resources to manage sustainability in its own operations, e.g. sustainability tasks are often performed by line managers

Moderate: T1 has sufficient resources to manage sustainability in its own operations but not in T2 operations

High: T1 has sufficient resource to dedicate to the management of sustainability of T2 suppliers, e.g. employing agronomists and other experts

Internal functional alignment at the lead firm organization

Low: Managers of both functions (sustainability and purchasing) operate with different performance systems and do not exchange information on suppliers

Moderate: Performance systems for managers of both functions are relatively aligned and/or regular information exchange regarding suppliers takes place

High: Performance systems for managers of both functions are aligned and engage in frequent information exchange regarding suppliers

Lead firm's use of buying power

Mediated: Based on extrinsic forms of pressure to gain compliance from the power target,

Non-mediated: Not based on explicit actions but rooted in the target's perception that the power source is an expert

Fig. 2. Revisited framework.

also creates positive incentives for double agency. We can also validate that this link was more difficult to establish for social sustainability, as seen in the CE case (Gimenez and Tachizawa, 2012). More interestingly, we found that the differences between social and environmental sustainability are amplified at the secondary agency level, as they are linked differently to information transparencies. Of the two, the noncompliance with environmental sustainability is easier to detect, as the illegal use of pesticides at the field level can be traced in samples, and the use of water and other natural resources is rigorously documented in field books; conversely, overtime and sexual harassment issues remain "invisible."

Furthermore, and in line with previous research (Bhakoo and Choi, 2013; Barratt and Choi, 2007), we find that limited resource availability at the first-tier supplier's level can be a critical catalyst for decoupling. With the exception of the tea case, the cost burden of implementing sustainability upstream has to be carried by the first-tier supplier. The ability to do so is obviously linked to the supplier's internal resource availability, which is often limited due to the more or less severe price pressures in the buyer–supplier relationship. Resource availability plays out again stronger at the secondary agency level and creates incentives for (de)coupling. Whereas the absence of dedicated staff for sustainability at the first-tier supplier's organization can be temporarily filled by line managers, in addition to their daily responsibilities related to the primary agency role, it becomes impossible to compensate at the level of secondary agency, as the CE case demonstrates. This does not mean, however, that a formally designated sustainability manager needs to be in place. In the agricultural product industry, where the secondary agency role was coupled, rather than paying lip service by having a formal title, the first-tier suppliers designated this critical task to specialized agronomists, who were hired to train the farmers.

Furthermore, the degree of internal alignment between the sustainability and purchasing function at the lead firm's organization limits the efficacy of social compliance programs and leads to detrimental sourcing practices—including last-minute order changes, poor forecasting, and supplier capacity overloading—that contribute to the social performance problems that compliance programs attempt to resolve (Locke et al., 2013). Our study sheds new light on this risk by showing that a low degree of functional alignment at the lead firm becomes particularly problematic at the secondary agency level, where it has a detrimental effect on the information transparency between the lead firm and the second-tier level. While Gamma's commodity teams have recently begun to extend their reach to the second-tier level, their main focus is again on traditional purchasing metrics. Sustainability remains the responsibility of the sustainability office, which does not engage with the second-tier level. Contrastingly, in the agricultural product and tea cases, there is regular interaction between purchasing managers and the field level to assess the quality of the good, thereby reducing information asymmetries between the lead firm and the second-tier suppliers. As purchasing managers are also sensitized regarding sustainability issues and interact closely with the agronomists at their firms, this increases the chances for coupling of the secondary agency role.

Finally, our analysis also highlights the different uses of buying power and the implications for double agency. The CE case validates the high risk of decoupling when the lead firm enforces its sustainability requirements based on purchasing power only (Jiang, 2009). This risk increases in particular for secondary agency, as we found that the upstream suppliers might be larger and more powerful than the first-tier suppliers. In contrast, the use of power in the tea case was less directive but more sympathetic, as the lead firm attempted to improve the livelihoods of farmers beyond certification. Drawing on the distinctions between the different forms of power in the literature (Handley and Benton, 2009; Benton and Maloni, 2005), we can state that the use of power in the tea case was mostly non-mediated. Whereas mediated power relies on extrinsic forms of pressure to gain compliance from the power target, non-mediated power bases are not explicit actions but are rooted in the target's perception that the power source is an expert (Maloni and Benton, 2000). Non-mediated power relies on the internal processes of internalization and identification and the target's willingness to comply (Frazier and Summers, 1984), and it might be more supportive toward double agency, specifically in multi-tier supply chains with diminishing power asymmetries.

Our revised framework validates some of the contingencies that have previously been discussed in the sustainable supply chain literature (mostly in a dyadic setting) but adds new insights regarding how they might be particularly relevant in a multi-tier context. In this way, we contribute to an emerging theory of sustainability in the multi-tier supply chain (Mena et al., 2013; Grimm et al., 2014) and highlight some points for a future research agenda.

7. Charting a future research agenda

Our conceptual framework (Fig. 2) has opened the doors to the scholarly community for further research within the OM/SCM domain and, specifically, in the area of sustainability. Beyond the next step of testing our framework in a large-scale study, we detail below three research streams that are underlined by intriguing issues that can be empirically explored employing diverse methodological approaches.

At the outset, we believe that integrating a behavioral perspective would enrich our understanding of the deep-rooted causes of suppliers breaching their double agency role. Tapping into Siemsen et al.'s (2008) work on the concept of motivation, opportunity and ability (MOA) would be a useful framework for advancing our understanding of the double agency role. This is essentially because lead firms often provide assistance in developing the ability of suppliers further upstream to achieve sustainability compliance, but they ignore the motivational aspect. We suggest investigating the double agency role with respect to motivational studies (Vroom and Yetton, 1973) and integrating them with principal–agent considerations (Wiseman and Gomez-Mejia, 1998), specifically in the form of financial and nonfinancial incentives in light of intrinsic and extrinsic motivation. An interesting question relates to how to best determine the right fit and appropriate mix of incentives on the grounds of behavioral agency assumptions. Large-scale surveys that investigate the behavioral dimension at the multi-tier level would be useful in this endeavor. Another opportunity is the investigation of double agencies in experiments that represent the structure of multi-tier supply chains that manipulate motivation in public good games.

The second avenue for future research is to investigate the effects of power asymmetries along multi-tier supply chains. The pushing of codes of conducts through auditing and monitoring has been criticized as a coercive strategy that is employed by firms (Lund-Thomsen and Lindgreen, 2014), and we have seen its limited effectiveness in a multi-tier context with diminishing power asymmetries. As power asymmetries can take different forms, more thorough investigation is needed across different industries. Supply chains in the automotive industry, for example, might be generally characterized by the positive power differentials along the chain, where downstream firms generally seem to possess more power over their upstream firms. In contrast, supply chains in the precious metal and diamond industry might confront more heterogeneous setups and potentially negative power differentials where the final tier in the supply chain is, in fact, the

most powerful tier. These power considerations might provide important insights into sustainability flow-through effects, which are currently given insufficient attention in the literature. Further, with third-party certifying organizations and NGOs playing a pivotal role in this domain, it would be interesting to see how these organizations influence power dynamics in the supply chain. NGOs are important stakeholders of the lead firm that can not only serve as early warning mechanisms in their observer role and assist the lead firm with its expertise and its ability to perform effective and timely audits (Gualandris et al., 2015) but can also have positive effects on asymmetric power structures in supply chains. As more sympathetic bodies, they are able to help the lead firm to apply a non-mediated form of power that has been found to be more effective in a multi-tier context. It would be worthwhile to investigate how the involvement of NGOs has an impact on the development of trust and commitment in the relationships upstream in the supply chain. Resource dependency theory and agency theory could be employed in a complementary fashion to explore these questions. The power that NGOs and certification bodies wield is not static; rather, they change with the role of regulations and buyer mandates. Consequently, longitudinal case studies across different contexts would be appropriate to validate this question.

Our final avenue of future research reinforces the view that environmental and social dimensions are indeed different and that efforts should be devoted to integrating social and environmental dimensions under the tripartite of the triple bottom line. We found that of the two dimensions, it was more difficult to link social sustainability to performance, as enhancing skills and compensation would increase labor costs at the outset but would only gradually translate into cost reductions (Pullman et al., 2009). It is also difficult to divorce elements of social sustainability from noneconomic institutions, such as family, religion, and government bodies, in which elements of cultural embeddedness shape the double agency role of the upstream suppliers (Wu and Pullman, 2015). This is specifically the case when upstream players in the supply chain are located in non-Western countries. Therefore, to conduct a thorough investigation of this dimension, it is imperative that scholars engage with diverse stakeholders and immerse themselves in the context. Ethnographic methods would be ideal, as they would enable the researchers to engage in the relevant cultural practices and develop frameworks that provide a more nuanced understanding of the implementation of sustainability practices in the global south (Yawar and Seuring, 2015).

8. Implications for practice

Reflecting on our findings, we outline several recommendations for the lead firms and the first-tier suppliers to implement as effective and long-term antidotes to decoupling.

First, lead firms need to be aware that enabling double agency requires the building up of additional capabilities for suppliers operating at the first-tier level. Thus, rather than completely delisting noncompliant suppliers, lead firms should make investments to stimulate the suppliers' abilities and motivation. This includes ICT and resource capabilities, but more importantly, because the sub-suppliers operate (largely) in the developing world, it is imperative that these organizations develop cultural intelligence and engage with NGOs to enable them to acquire a comprehensive understanding of the relevant constraints and adequate capabilities that are required to prevent decoupling. For example, customized training sessions can be conducted, and (nonmonetary) incentives, such as providing recognition and awards to the suppliers, should be implemented so that the value of complying with sustainability standards becomes thoroughly assimilated into their attitudes. This does not always require large investments. For example, as part of the Rainforest Alliance certification, Kenyan tea farmers are taught how to conserve rainwater and manage their waste to keep their farms and houses clean, thereby improving their own livelihoods and those of their families. The introduction of kitchen gardens not only increases self-sufficiency in food but also empowers the women who now have their own projects. These small but effective measures, which are sympathetic to the respective institutional environments, lead to a higher level of commitment among suppliers in regard to coupling their practices with the sustainability requirements of their customers even after the premium price for certified tea was abolished.

Second, power plays an important role in MSCs; therefore, the key question that arises is how the first-tier suppliers deal with the scenarios in which they are less powerful than the second-tier suppliers. As even the lead firm might be unable to exert power on the second-tier suppliers in such situations, by joining up with NGOs, other lead firms and more powerful first-tier suppliers could facilitate an implementation of sustainability standards as a collective effort. This approach would also reduce the number of diverging sustainability standards, thereby making it easier for suppliers to deal with a joint sustainability standard.

Third, it is important for lead firms to closely align their purchasing and sustainability functions and design both internal performance management systems and supplier performance metrics accordingly. Misalignment not only results in conflicting aims for suppliers that can be bridged only by decoupling the primary agency role but can also lead to reduced information transparency between the lead firm and second-tier suppliers, as our study showed. As we found that the purchasing departments of our sampled lead firms are currently extending their reach to the sub-supplier level, sensitizing purchasing for sustainability issues by aligning supplier performance metrics and increasing interfunctional internal information exchange is another effective method of maintaining insights into sub-suppliers' operations.

9. Conclusion

With this study, we extend and enrich the strand of literature on suppliers' decoupling of sustainability policies and practices (e.g., Jamali et al., 2015; Jiang, 2009) by bringing into focus the secondary agency role. While the recently emerging discussion on multi-tier supply chains in the context of sustainability has started to acknowledge the role of the first-tier supplier in disseminating the standards and practices of the lead firm to the lower tiers (Grimm et al., 2014; Mena et al., 2013), our study is the first that sought to understand the conditions under which first-tier suppliers comply with their primary and secondary agency roles in the quest for a transparent supply chain. Employing the concept of double agency and complementing it sympathetically with institutional decoupling arguments, we developed a conceptual framework that could provide fertile ground for researchers to develop and test their ideas within the domain of multi-tier supply chains within and beyond a sustainability context.

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Appendix A. Illustration of coded data

Case 1: Agricultural products (dairy/vegetables)

Regulatory pressures for sustainability	"Companies like Beta often define their standards on a global level and put things like child labor and other things in their codes that are already regulated and monitored by the government here. We do not want to integrate these requirements into our own code, as this does not make sense, and our farmers perceive it as a waste of time." (Beta DP_T1_2, Manager Cooperative Affairs)
	"… national authorities are also looking very close on us. They also have the power to check to see if things are under control not only because of that but also because until this year, we don't know how it will be in the next years. There were subsidies from the European Union to the farmers, so because of that, there's a lot of power from the agriculture ministry in terms of making controls in the field, and not only control of production volumes but they also control how it is done, because that has to do with regulations—not only financial ones but also environmental ones—and the farmers have to comply." (Alpha VT T1_B, Corporate Quality Assurance Manager)
Sustainability management competencies	"Many companies are struggling with what is sustainable. A lot don't know what they are talking about, and they don't know what they want. For example, XY, another customer of ours, is not as advanced in their sustainability program as [Beta] or as we are. As we are more proactive in this area, we have actively approached XY to adapt our sustainability standards, and they were happy about that." (Beta DP_T1_2, Key Account Manager)
	"Over the years, we have developed a sustainable agricultural code that was, let's say, used to implement sustainable agriculture for the fruit and vegetables and the tea, (…) and it is deemed to be quite a sharp piece of work, so we are actually very proud of what has been developed by our sustainable agricultural team (…). So, quite a lot of effort and development have gone into this document—the sustainable agricultural code. (…) but when we come to dairy, where we are dealing with animals and animal husbandry, and the implementation is slightly different, so there was a slight gap within the code; it didn't deal with that part about managing animals (…)." (Beta, Purchasing Manager)
Incentives T1 for primary/ secondary agency role	"We do not receive any additional incentives from Beta, but we would not have become a strategic partner without our efforts. Being a strategic partner secures long-term business with Beta. And since Beta has set the target that they want to source 100% of their ingredients sustainably by 2020, we are becoming more important to them. And our sustainability efforts are something we use to justify our prices in negotiations—why we are more expensive than our competitors." (Beta DP_T1_2, Key Account Manager)
	"I mean those suppliers that we select will also realize that we are not … that we can't sit with everybody, with all of our current suppliers to say, 'Look, this is what we want to achieve,' so, for those that we do select, I think it is a relatively privileged position to be in that they have been selected as a key supplier for [Beta] to join the fondness journey. And I think, for the most part, it's positively received and they want to." (Beta, Purchasing Manager)
Available resources	"We are employing 35 farm consultants who are advising the farmers regarding milk quality, as well as sustainability issues. The Cooperative Affairs Department is responsible for managing farmers, and they are in direct contact with them." (Beta DP_T1_2, Key Account Manager)
	"Yes, we have agronomists; one agronomist per plant is responsible for a couple of farmers. They go out and do the field work." (Alpha VT T1_B, Corporate Quality Assurance Manager)
Power	"Beta is *a* customer, but there are others. We will not confront farmers with individual demands from just one customer." (Beta DP_T1_2, Key Account Manager)
	"… and what the challenge is for the dairies is that they don't want to be having something specific for Unilever, something specific for Nestle, something specific for Danone. (…) So, for the dairies, what's probably challenging is to get them to do something specific for us." (Beta, CPO)
Information asymmetry buyer-T1	"Our collaboration is very close; we have regular meetings related to sustainability topics. It's also at the top of the agenda of our steering committee meeting with them." (Beta DP_T1_2, Key Account Manager)
Information asymmetry buyer-T2	"We also participate in the training so that we understand the questions that arise from our farmers. The buyers and the sustainable agricultural operations team participate." (Beta, Purchasing Manager)
	"… we have a team of agronomists who will go out and visit not just with our first-tier suppliers but also go out and visit with farmers that we traditionally use year on year. They'll go to the field and do all the things you'd expect in terms of checking records and traceability exercises and stuff just to get a feel that the principles that we expect from our first tier-suppliers are followed through down the chain." (Alpha, Purchasing Manager)
Coupling/ Decoupling primary agency role	We constantly look at developing tools that we can use with our suppliers to help them to think differently about risks not just in the field but also in the factories. [We are] trying to shift the focus away from audits to control, investigating issues, being more preemptive, and really trying to get them to think about different failure modes within their supply chains, and from my perspective, you can judge your supplier on how proactive they are. If you ask a question about something that is relatively new in the industry and you have a supplier that goes: 'Yeah, we are aware of that, and we've got some things that we are working on,' it leaves you feeling a lot better than a supplier who writes it down and says, 'I'll go and have a look at it.'" (Alpha, Purchasing Manager)
	"… I guess, in Europe, we are quite lucky in that sense. I think it will probably be more of a challenge in the Asia Annex, for example, but in Europe, what we see are the big companies, the big dairies, already having their own sustainability agenda and the targets in place." (Beta, CPO)
Coupling/ Decoupling secondary agency role	"You have to monitor every step. We supply the seeds; we supply the chemicals; we spray the chemicals; we monitor throughout the planting, growing, and harvest seasons; and we also do a lot of testing to ensure these beans are still what we want. So you cannot say that one time you go to the farm and you do your audit once a year or twice a year, and then you have the perfect beans. That is not possible." (Alpha VT T1_B, Corporate Quality Assurance Manager)
	"And, actually, when we have Alpha people here, we take them to the farmers on a lunch or something, and we arrange that the farmers meet with Alpha so that they understand, okay, here … And sometimes we invite the farmers (to our factories) so that they see how their product is actually being canned." (Alpha VT T1_A, CEO)

Case 2: Tea

Regulatory pressures for sustainability	"Whereas the wages of farmers have improved, farm workers still earn less than the minimum wage. And it is often it is black labor, so there are no controls. (…)" (Wageningen University, Senior Researcher)
Sustainability management competencies	"When we started the process of getting Rainforest Alliance certification, the first thing we had to do was to understand what standard was required and adapt that for tea. So Beta was the first company to do that. We got our own people upskilled so we understood what it was all about, and then on the basis of that, our own personnel were the first to start training our suppliers in Rainforest Alliance certification requirements because they were the most knowledgeable because they understood tea and they understood standard requirements. So, for a number of years, the most qualified group of trainers in Kenya for tea and links with Rainforest Alliance adaptation were Beta people." (Beta, Supplier Development Manager)
	"So we have supplier managers not buyers, so we want people who are skilled in a lot of technical stuff that is associated with what they are buying. (…) So tea is different, and it is something exotic and sexy that you can really appreciate, and there is a skill associated with it. And the people we have want to be skilled. And Beta has done a lot of work training everyone; everyone—not just tea people. But with tea comes the additional skill set of really understanding sustainable agriculture. So there is a lot of training going on internally to make sure people are qualified to do that." (Beta, Supplier Development Manager)
Incentives T1 for primary/ secondary agency role	"The farmers have come to appreciate that these practices are beneficial and even economically beneficial to their enterprise. That has been demonstrated to have a positive impact on their livelihoods, increase productivity, and so on (…). So the farmers realize the benefits of these programs." (Beta Tea_T1, General Manager Operations)
	"Another factor is that we buy tea directly from them rather than the auction system. They negotiate a price for tea based on a number of factors, and one of them is the fact that it is certified tea. They used that as a negotiation to get more money to return to the farmers." (Beta, Procurement Operations Manager)
Available resources	The majority of the funding is actually provided by the farmers themselves. If you add up all the time that the senior management team, the middle management team, and the extension offices spend preparing [the certification] (…). So when producers are preparing the certification, there is the cost of training—that is what is provided for free or covered by the funding—and there is the cost of compliance, which can be anything between nothing and quite a lot. So those are all the changes they need to make at the factory level: special equipment, health and safety, facilities, things like that. And that is covered by the producers. And then there is the costs of the audits; that is also covered by the Beta Tea_T1." (Rainforest Alliance, Manager Tea)
	"In a collaborative way; we came to the conclusion that we should do this together. That is the reason that we have a program that is cost-shared (…). So this is nothing that they asked for but that developed. It is logical, we are partners, and we work together." (Beta, Supplier Development Manager)
Power	"Beta Tea_T1 is one of our biggest suppliers. So if we want to achieve our target to source all the ingredients for our tea bags sustainably, we have to get Beta Tea_T1 certified; otherwise, we will never make it. They are a major, major supplier for our brand. (…) There has always been a business relationship, but it has only become extremely strong in the last couple of years, and right now, it is extremely strong. (… .) And I work on exactly that—embedding a sustainability strategy with Beta Tea_T1." (Beta, Procurement Operations Manager)
	"… it is also a buyer–supplier relationship, and Beta Tea_T1 obviously has no choice to say, 'No, we are not doing this.' That is usually the case with certification. You also see it in other sectors like cocoa. Smallholders have no choice but to do it." (Wageningen University, Senior Researcher)
Information asymmetry buyer-T1	"As a minimum, we interact on a weekly basis. We get feedback on the tea we have sent to them on an every-week basis. So, there is a quality feedback. And then every quarter we interact with them on the Rainforest Alliance and the Farmer Field School program that we are running. We have a committee together. And every quarter, we also sit in the joint business development program. We interact weekly to discuss the quality, and this is also embedded in the joint business development plan. They give us feedback on the tea and on what we need to do and whether they are happy with it or not." (Beta Tea_T1, General Manager)
Information asymmetry buyer-T2	"The way that I think is because of the nature of tea procurement. Tea buyers are extremely close to their material. Because tea is predominantly bought based on quality and tea quality changes every day of the year because it's a natural product, because of rainfall, sunlight, and a whole range of reasons, tea being produced in one location today will not necessarily taste the same next week and the week after and the week after. That is very well-known, which is why we have tea experts who taste tea and assess tea quality, and they make buying decisions based on that changing quality. But as part of their knowledge building, they spend a lot of time visiting tea factories and tea farmers. They already have a very close relationship with producers, so they see the types of activities that are happening on tea estates." (Beta, Procurement Operations Manager)
	"So we have got a network of people who are skilled when it comes to agriculture and processes for tea, markets, product safety, food hygiene, and responsible sourcing, and those people are called our tea buyers. And that is because they are supplier managers rather than tea buyers. Their role is to connect with suppliers directly—so that is the factories and the marketing organizations—but they also have a role to go into the fields and into the farms and to interact directly with farmers. And they are skilled in knowing what certification requirements are, what sustainable agriculture is about, and what to look out for in the area of ethical and responsible sourcing." (Beta, Supplier development manager)
Coupling/ decoupling primary/ secondary agency role	"They have a group, and it is quite an extensive network. And they are all trained in tea agronomy and the sustainable agricultural network standard. And they perform that role as well. And honestly speaking, if you look at the effort and the time of training that is conducted, Rainforest Alliance as an organization contributes the least. Beta Tea_T1 delivers the most, because they have more people they dedicate for the training." (Beta, Supplier Development Manager)
	"Before that, there was an extension service with field meetings, where you put 3000 people in the field with a megaphone and you do some talking, singing, and dancing. And now it is smaller groups and more visits, it is a different way of working, and Beta Tea_T1 hired more extension staff. Actually, farmers are more in contact with the factories now as Beta Tea_T1 decreased its ratio between extension staff and farmers." (Wageningen University, Senior Researcher)

Case 3: Consumer Electronics (CE)

Regulatory pressures for sustainability	"In China, there are great discrepancies between the legal requirements and the actual enforcement of these laws, which creates a great challenge for our work of managing supplier sustainability … Ninety percent of factories are running without all the necessary certificates and permissions … For many issues, China has many unrealistic laws. For example, we still have many labor-intensive and export-oriented factories. Setting an overtime level of 36 h per month is simply unrealistic. Therefore, most of our suppliers cannot meet this requirement." (Gamma, Supplier Sustainability Expert)
	"It is very difficult to push suppliers to comply with social insurance requirements. China has started to build the social insurance system since 1994. However, after so many years, our social insurance system is still rather immature and fragmented in the sense that each province has its own policies and systems. In other words, social insurances in our country are not really open for cross-province transfers. Therefore, most workers are not willing to buy social insurances … because they cannot benefit from this money when they stop working and go back to live in their home provinces." (Gamma, Supplier Sustainability Expert)
Sustainability management competencies	"Our customers have become more stringent in their sustainability requirements, such as working hours and emergency preparedness. Along with the more strict requirements, we are also becoming more experienced in coping with these audits. We know these requirements better after these audits … We have developed our understanding of social responsibility in these processes; otherwise, we would have no idea about the EICC codes of conduct." (Gamma_CE_T1_C, General Manager Assistant)
	"When Gamma introduced the EICC codes of conduct to us, these requirements were very abstract. It was not easy to understand what they implied for our operations and management … We did some preparations, but we were very unsure whether we could meet these requirements … We were very nervous during the first audit … When the SGS audit identified 36 problems, we were not very surprised. (…) We were not so nervous before the second audit, because we have developed our understanding of the EICC codes of conduct during the previous audits and training." (Gamma_CE_T1_E, HR Manager)
Incentives T1 for primary/ secondary agency role	"Our general manager used to remind us quite often that Gamma is our largest customer, and we focus on serving Gamma. We should try our best to meet Gamma's requirements unconditionally." (Gamma_CE_T1_G, Management System Engineer)
	"Gamma was our most important customer for a long time … It was really a hard time when Gamma canceled almost all its orders, as more than 90% of our businesses depended on Gamma … However, though the transaction volume between us is really trivial, we keep producing some products for Gamma basically for no benefits, with a vision that someday, when they have new programs, we will be included in its supplier candidates list … We stick to the EICC codes of conduct, then we have better opportunities of being qualified for those potential programs." (Gamma_CE_T1_B, HR Manager)
Available resources	"When it comes to extending the EICC codes of conduct to our suppliers, we can only introduce but not enforce them (…) Gamma has a dedicated team managing supplier sustainability. (…). We do not have sufficient resources to systematically extend these requirements to our suppliers." (Gamma CE T1_E, Management System Engineer)
	"We have more than 200 suppliers. How many people do we have in our firm for management systems? We have in total three part-time managers doing this … We do not have the time and resources to enforce these requirements as Gamma is doing …" (Gamma_CE_T1_F, HR Manager)
Power	"On extending the EICC codes of conduct, we are hesitating, because many suppliers will not accept our request at all … We are motor producers, and we use a lot of copper and steel. These components are provided by two Chinese giants … We are a trivial customer to these suppliers … They even reject our quality and process improvement requirements … How can we enforce stricter requirements for social responsibility?" (Gamma CE T1_E, General Manager)
	"According to our purchasing strategy, we need at least two suppliers for the same components. Sometimes, we need three or four suppliers for a component (…). We cannot use the EICC codes of conduct as a condition for business. Gamma is threatening to cancel all orders if we cannot pass the audit by the end of this year. However, we cannot threaten our suppliers in that way." (Gamma CE T1_F, HR Manager)
Information asymmetry buyer-T1	"Supplier sustainability is not a key KPI for us … When I visit my suppliers, I will pay attention to the suppliers' overall performance, but EICC or sustainability is not the most important thing for us." (Gamma, Supplier Account Manager)
	"Our main interaction is with the commodity managers of Gamma. We only interact with the sustainability experts of Gamma when there is an audit, which takes place every three years." (Gamma_CE_T1_C, General Manager Assistant)
Information asymmetry buyer-T2	"For the future, we plan to extend our control of the supply chains. It is not enough to simply focus on our suppliers. We need to know our suppliers' suppliers and even further upstream in our supply chains. Only when we have gained full, good knowledge and control, we know the cost structure, the added values, and potential risks in our supply chains" (Gamma, Commodity Leader)
Coupling/ decoupling primary agency role	"We know that many of Gamma's other tier-one suppliers are superficially compliant with the EICC codes of conduct. They just aim to pass these audits. We are different. When we have decided to build a management system, then we will make sure that such a system is professional and is working well … As you may know, we have first-party, second-party, and third-party audits checking the functioning of our management systems. After each audit, we take actions to resolve all the identified problems." (Gamma_CE_T1_G, Management System Engineer)
	"Gamma is pushing us to improve quality, speed up delivery … and now take more social responsibilities … They simply ask for better performance, and they do not really care about how we are able to cope with all of these requirements … I think these requirements will drive us to bankruptcy in the end …" (Gamma_CE_T1_E, General Manager)
Coupling/ decoupling secondary agency role	"We inform our suppliers about these sustainability requirements. However, (…) it is not our responsibility to check whether our suppliers are sticking to the EICC codes of conduct. We pay more attention to quality-related issues. (…) it is out of our scope to check how much money our suppliers pay their employees. (…) We know that our suppliers have problems with overtime. But what can we do about that? We can find another supplier with less overtime, but this supplier will be more expensive. (…)" (Gamma CE T1_C, General Manager Assistant)
	"We do not have a management system for managing our suppliers' sustainability. On this aspect, we are more often using supplier visits and assessments. Compared with Gamma, we are a really small supplier. Our suppliers are even smaller than we are. There must be many problems there. When we identify any problems during our supplier audits, we will bring them on board and suggest that our suppliers take action … We cannot afford a complete and well-functioning supplier sustainability management system, as Gamma has developed. We are really too small." (Gamma CE T1_A, General Manager)

References

Arthurs, J.D., Hoskisson, R.E., Busenitz, L.W., Johnson, R.A., 2008. Managerial agents watching other agents: multiple agency conflicts regarding underpricing in IPO firms. Acad. Manag. J. 51 (2), 277–294.

Ashby, A., Leat, M., Hudson-Smith, M., 2012. Making connections: a review of supply chain management and sustainability literature. Supply Chain Manag. An Int. J. 17 (5), 497–516.

Ayuso, S., Roca, M., Colomé, R., 2013. SMEs as "transmitters" of CSR requirements in the supply chain. Supply Chain Manag. An Int. J. 18 (5), 497–508.

Barratt, M., Choi, T., 2007. Mandated RFID and institutional responses: cases of decentralized business units. Prod. Oper. Manag. 16 (5), 569–585.

Benton, W.C., Maloni, M., 2005. The influence of power driven buyer/seller relationships on supply chain satisfaction. J. Oper. Manag. 23 (1), 1–22.

Bhakoo, V., Choi, T., 2013. The iron cage exposed: Institutional pressures and heterogeneity across the healthcare supply chain. J. Oper. Manag. 31 (6), 432–449.

Boxenbaum, E., Jonsson, S., 2008. Isomorphism, diffusion and decoupling. Sage Handb. Organ. Inst. 78–98.

Burgen, S., Phillips, T., 2011. Zara Accused in Brazil Sweatshop Inquiry. http://www.theguardian.com/world/2011/aug/18/zara-brazil-sweatshop-accusation (accessed 09.19.14.).

Carter, C.R., Rogers, D.S., 2008. A framework of sustainable supply chain management: moving toward new theory. Int. J. Phys. Distrib. Logist. Manag. 38 (5), 360–387.

Cheng, S.K., Kam, B.H., 2008. A conceptual framework for analysing risk in supply networks. J. Enterp. Inf. Manag. 21 (4), 345–360.

Child, J., Rodrigues, S.B., 2003. Corporate governance and new organizational forms: issues of double and multiple agency. J. Manag. Gov. 7 (4), 337–360.

China Labor Watch, 2012. Tragedies of Globalization: the Truth behind Electronics Sweatshops. http://www.chinalaborwatch.org/upfile/2011_7_11/20110712.pdf (accessed 14.03.15.).

Choi, T.Y., Dooley, K.J., Rungtusanatham, M., 2001. Supply networks and complex adaptive systems: control versus emergence. J. Oper. Manag. 19 (3), 351–366.

Choi, T.Y., Hong, Y., 2002. Unveiling the structure of supply networks: case studies in Honda, Acura, and DaimlerChrysler. J. Oper. Manag. 20 (5), 469–493.

Christmann, P., Taylor, G., 2006. Firm self-regulation through international certifiable standards: determinants of symbolic versus substantive implementation. J. Int. Bus. Stud. 37 (6), 863–878.

Ciliberti, F., De Haan, J., De Groot, G., Pontrandolfo, P., 2011. CSR codes and the principal–agent problem in supply chains: four case studies. J. Clean. Prod. 19 (8), 885–894.

Crilly, D., Zollo, M., Hansen, M., 2012. Faking it or muddling through? Understanding decoupling in response to stakeholder pressures. Acad. Manag. J. 55 (6), 1429–1448.

Eisenhardt, K.M., 1988. Agency- and institutional-theory explanations: the case of retail sales compensation. Acad. Manag. J. 31 (3), 488–511.

Eisenhardt, K.M., 1989. Agency theory: an assessment and review. Acad. Manag. Rev. 14 (1), 57–74.

Eisenhardt, K.M., Graebner, M.E., 2007. Theory building from cases: opportunities and challenges. Acad. Manag. J. 50 (1), 25–32.

Elkington, J., 1997. Cannibals with Forks: the Triple Bottom Line of 21st Century Business. Capstone, Oxford.

European Commission, 2013. Policy Perspectives for EU Agriculture. http://ec.europa.eu/agriculture/policy-perspectives/index_en.htm (accessed 14.03.15.).

European Commission, 2014. Sustainable Dairy Farming in Europe. http://cordis.europa.eu/result/rcn/91965_en.html (accessed 14.03.15.).

Fair Labour Association, 2012. Independent Investigation of Apple Supplier, Foxconn. https://www.fairlabor.org/sites/default/files/documents/reports/foxconn_investigation_report.pdf (accessed 16.03.15.).

Fayezi, S., O'Loughlin, A., Zutshi, A., 2012. Agency theory and supply chain management: a structured literature review. Supply Chain Manag. An Int. J. 17 (5), 556–570.

Frazier, G.L., Summers, J.O., 1984. Interfirm influence strategies and their applications within distribution channels. J. Mark. 48 (3), 43–55.

Gibbert, M., Ruigrok, W., Wicki, B., 2008. What passes as a rigorous case study? Strateg. Manag. J. 29, 1465–1474.

Gimenez, C., Tachizawa, E.M., 2012. Extending sustainability to suppliers: a systematic literature review. Supply Chain Manag. An Int. J. 17 (5), 531–543.

Grimm, J.H., Hofstetter, J.S., Sarkis, J., 2014. Critical factors for sub-supplier management: a sustainable food supply chains perspective. Int. J. Prod. Econ. 152, 159–173.

Gualandris, J., Klassen, R.D., Vachon, S., Kalchschmidt, M., 2015. Sustainable evaluation and verification in supply chains: aligning and leveraging accountability to stakeholders. J. Oper. Manag. 38, 1–13.

Handley, S.M., Benton, W.C., 2009. Unlocking the business outsourcing process model. J. Oper. Manag. 27 (5), 344–361.

Hartmann, J., Moeller, S., 2014. Chain liability in multitier supply chains? Responsibility attributions for unsustainable supplier behavior. J. Oper. Manag. 32 (5), 281–294.

Hora, M., Bapuji, H., Roth, A.V., 2011. Safety hazard and time to recall: the role of recall strategy, product defect type, and supply chain player in the US toy industry. J. Oper. Manag. 29 (7), 766–777.

Jamali, D., Lund-Thomsen, P., Khara, N., 2015. CSR institutionalized myths in developing countries: an imminent threat of selective decoupling. Bus. Soc. (in press).

Jensen, M.C., Meckling, W.H., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. J. Financ. Econ. 3 (4), 305–360.

Jiang, B., 2009. The effects of interorganizational governance on supplier's compliance with SCC: an empirical examination of compliant and non-compliant suppliers. J. Oper. Manag. 27 (4), 267–280.

Jick, T.D., 1979. Mixing qualitative and quantitative methods: triangulation in action. Adm. Sci. Q. 24 (4), 602–611.

Ketchen Jr., D.J., Giunipero, L.C., 2004. The intersection of strategic management and supply chain management. Ind. Mark. Manag. 33 (1), 51–56.

Ketokivi, M., Choi, T., 2014. Renaissance of case research as a scientific method. J. Oper. Manag. 32 (5), 232–240.

Klassen, R.D., Vereecke, A., 2012. Social issues in supply chains: capabilities link responsibility, risk (opportunity), and performance. Int. J. Prod. Econ. 140 (1), 103–115.

Koh, S.C.L., Gunasekaran, A., Tseng, C.S., 2012. Cross-tier ripple and indirect effects of directives WEEE and RoHS on greening a supply chain. Int. J. Prod. Econ. 140 (1), 305–317.

Kostova, T., Roth, K., 2002. Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects. Acad. Manag. J. 45 (1), 215–233.

Lee, K.H., Kim, J.W., 2009. Current status of CSR in the realm of supply management: the case of the Korean electronics industry. Supply Chain Manag. An Int. J. 14 (2), 138–148.

Lee, H.L., Plambeck, E.L., Yatsko, P., 2012. Incentivizing sustainability in your Chinese supply chain. Eur. Bus. Rev. 27–35 (May/June).

Locke, R.M., Rissing, B.A., Pal, T., 2013. Complements or substitutes? Private codes, state regulation and the enforcement of labour standards in global supply chains. Br. J. Ind. Relat. 51 (3), 519–552.

Lund-Thomsen, P., Lindgreen, A., 2014. Corporate social responsibility in global value chains: where are we now and where are we going? J. Bus. Ethics 123 (1), 11–22.

MacDonald, C., Norman, W., 2007. Rescuing the baby from the triple-bottom-line bathwater: a reply to Pava. Bus. Ethics Q. 17 (1), 111–114.

Maloni, M., Benton, W.C., 2000. Power influences in the supply chain. J. Bus. Logist. 21 (1), 49–74.

Mena, C., Humphries, A., Choi, T.Y., 2013. Toward a theory of multi-tier supply chain management. J. Supply Chain Manag. 49 (2), 58–77.

Meredith, J.R., 1998. Building operations management theory through case and field research. J. Oper. Manag. 16 (4), 441–454.

Meyer, J.W., Rowan, B., 1977. Institutionalized organizations: formal structure as myth and ceremony. Am. J. Sociol. 83 (2), 340–363.

Miles, M.B., Huberman, A.M., 1994. Qualitative Data Analysis: an Expanded Source Book. Sage, Newbury Park, CA.

OECD, 2013. Policy Instruments to Support Green Growth in Agriculture. http://www.oecd.org/tad/policy-instruments-to-support-green-growth-in-agriculture-9789264203525-en.htm (accessed 14.03.15.).

Pagell, M., Wu, Z., 2009. Building a more complete theory of sustainable supply chain management using case studies of 10 exemplars. J. Supply Chain Manag. 45 (2), 37–56.

Perreault, W.D., Leigh, L.E., 1989. Reliability of nominal data based on qualitative judgments. J. Mark. Res. 26 (2), 135–148.

Plambeck, E.L., 2012. Reducing greenhouse gas emissions through operations and supply chain management. Energy Econ. 34 (1), 64–74.

Pullman, M.E., Maloni, M.J., Carter, C.R., 2009. Food for thought: social versus environmental sustainability practices and performance outcomes. J. Supply Chain Manag. 45 (4), 38–54.

Rao, P., 2002. Greening the supply chain: a new initiative in South East Asia. Int. J. Operations Prod. Manag. 22 (6), 632–655.

Rv, T., Kolk, A., 2001. Multinationality and corporate ethics: codes of conduct in the sporting goods industry. J. Int. Bus. Stud. 32 (2), 267–283.

Siemsen, E., Roth, A.V., Balasubramanian, S., 2008. How motivation, opportunity, and ability drive knowledge sharing: the constraining-factor model. J. Oper. Manag. 26 (3), 426–445.

Siggelkow, N., 2007. Persuasion with case studies. Acad. Manag. J. 50 (1), 20–24.

Strauss, A.L., Corbin, J., 1990. Basics of Qualitative Research: Grounded Theory Procedures and Techniques. Sage publications, Newbury Park, CA.

Students & Scholars Against Corporate Misbehaviour (SACOM), 2012. Sweatshops Are Good for Apple and Foxconn, but Not for Workers. http://www.scribd.com/doc/95395223/Sweatshops-Are-Good-for-Apple-and-Foxconn-But-Not-for-Workers (accessed 16.03.15.).

Tachizawa, M.E., Wong, Y.C., 2014. Towards a theory of multi-tier sustainable supply chains: a systematic literature review. Supply Chain Manag. An Int. J. 19 (5/6), 643–663.

United Nations Development Program, 2014. Human Development Report 2014. http://hdr.undp.org/en/countries/profiles/KEN (accessed 03.12.15.).

van der Wal, S., 2011. Certified Unilever Tea: Small Cup, Big Difference? SOMO Centre for Research on Multinational Corporations, ISBN 978-90-71284-86-1.

Vroom, V.H., Yetton, P.W., 1973. Leadership and Decision-making. University of Pittsburgh Press, Pittsburgh.

Waarts, Y., Ge, L., Ton, G., Jansen, D., 2012. Sustainable Tea Production in Kenya: Impact Assessment of Rainforest Alliance and Farmer Field School Training. LEI report 2012-043, ISBN 978-90-8615-589-7.

Wiese, A., Toporowski, W., 2013. CSR failures in food supply chains–an agency perspective. Br. Food J. 115 (1), 92–107.

Wijen, F., 2015. Coupling, not decoupling, should be institutional theory's mantra: a rejoinder to Haack and Schoeneborn. Acad. Manag. Rev. 40 (2), 310–313.
Wiseman, R.M., Gomez-Mejia, L.R., 1998. A behavioral agency model of managerial risk taking. Acad. Manag. Rev. 23 (1), 133–153.
Wright, P., Mukherji, A., Kroll, M., 2001. A reexamination of agency theory assumptions: Extensions and extrapolations. J. Socio Econ. 30 (5), 413–429.
Wu, Z., Pagell, M., 2011. Balancing priorities: decision-making in sustainable supply chain management. J. Oper. Manag. 29 (6), 577–590.
Wu, Z., Pullman, M.E., 2015. Cultural embeddedness in supply networks. J. Operations Manag. 37, 45–58.
Yawar, S.A., Seuring, S., 2015. Management of social issues in supply chains: a literature review exploring social issues, actions and performance outcomes. J. Bus. Ethics (in print).
Yin, R.K., 2009. Case Study Research: Design and Methods, fourth ed. Sage Publications, Inc.
Yu, X., 2008. Impacts of corporate code of conduct on labor standards: a case study of Reebok's athletic footwear supplier factory in China. J. Bus. Ethics 81 (3), 513–529.
Zito, M.J., Yao, R., Chen, C., 2014. A Complete Guide to Minimum Wage Levels across China 2014. China Briefing.
Zsidisin, G.A., Ellram, L.M., 2003. An agency theory investigation of supply risk management. J. Supply Chain Manag. 39 (2), 15–27.