Institutional entrepreneurship capabilities for interorganizational sustainable supply chain strategies

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Abstract
Purpose – The purpose of this paper is to address the implementation of proactive interorganizational sustainable supply chain strategies by empirically exploring the relationship between key (inter-)organizational resources of the initiating company and the establishment of widely accepted voluntary sustainability initiatives.

Design/methodology/approach – The study is built on comparative case studies as well as literature on institutional entrepreneurship and the resource-based view.

Findings – The authors identify capabilities that enable the creation and establishment of company-driven voluntary sustainability initiatives – namely external stakeholder integration, cross-functional integration, the management of loosely coupled business units, supply chain implementation, process improvement and cultural framing.

Originality/value – With this study, the authors introduce institutional entrepreneurship theory to supply chain management literature and show that institutional entrepreneurship theory may contribute to the question of how organizations implement their interorganizational sustainable supply chain strategies. Specifically, the study derives propositions for key resources enabling the establishment of voluntary sustainability initiatives widely accepted by participants as well as initiative-external stakeholders.

Keywords Corporate strategy, Supply chain management, Purchasing, Resource management

Paper type Research paper

1. Introduction
Sustainability has been increasingly addressed in the supply chain management literature, arguing that organizations should expand their sustainability strategies into their entire supply chains (e.g. Ciliberti et al., 2008; Handfield et al., 2005; Neto et al., 2008; Vachon and Klassen, 2008; Zhu and Sarkis, 2004). An important reason for this is that customers and other external stakeholders hardly distinguish between the standards of the brand owner and its supply chain partners (Roberts, 2003).

Sustainability strategies are frequently differentiated into compliance and proactive strategies (Matten and Moon, 2008; Aragon-Corra, 1998). Compliance strategies reactively follow existing rules, norms and standards, which can be implicit or explicit (King and Lenox, 2000). Proactive sustainability strategies go beyond these and are implemented in order to increase competitiveness or broaden legitimacy (Rao and Holt, 2005; Hamprecht, 2006). In the context of supply chain management, the creation and establishment of voluntary sustainability initiatives is one means to
implement proactive interorganizational sustainable supply chain strategies (Carmin et al., 2003; Hamprecht, 2006). Voluntary sustainability initiatives are institutional arrangements in the form of guidelines, policies, codes of conduct, management systems, programs, certification schemes, or roundtables and aim at helping the participating organizations to meet the complex and urgent challenges of sustainability (UNEP, 2000).

The theory of institutional entrepreneurship explains how organizations create or change institutions, such as voluntary sustainability initiatives (DiMaggio, 1988). While resources that are employed by institutional entrepreneurs in general have been discussed, they have not been analyzed in the context of voluntary sustainability initiatives. With this paper we aim to contribute to the understanding of which resources specifically enable the creation and establishment of voluntary sustainability initiatives. This question is relevant from a theoretical point of view as it extends research on institutional entrepreneurship in the field of sustainability. It is also relevant from a practical perspective because current voluntary sustainability initiatives are considered to be time- and resource-inefficient in their development and implementation. Also, they often lack support from strategic stakeholders and supply chain partners (e.g. Fowler and Heap, 1998; Hamprecht, 2006; Reinhardt, 2005; Nick et al., 2006).

The following section reviews the theoretical foundation of sustainability strategies and explains the specific theories applied in our study. Section three describes the case-based research method used. In section four, we describe the case studies and our findings of the case comparison. In section five, we conclude our findings, stress the research limitations, and point out directions for future research. We finish this article with implications for business practice.

2. Theoretical background
Different views have been taken to investigate and explain corporate activities with respect to sustainability. Institutional theorists argue that engaging in corporate sustainability ensures an organization’s legitimacy (Bansal and Roth, 2000; Russo, 2002). The likelihood of long-term survival is higher for organizations that comply with legislation, societal norms and standards (DiMaggio and Powell, 1983; Hoffman, 1999) and with the demands of those stakeholders that are perceived as strategic for the firm (Sharma and Henriques, 2005). They avoid fines, penalties, public protest campaigns (Videras and Albertini, 2000), or common sanctions caused by industry- or supply chain-related accidents (King and Toffel, 2007). However, even when strict regulations are not installed, organizations can be motivated to respect certain environmental standards. In this context, industry self-regulation may emerge (Campbell, 2006) in order to avoid stakeholders, such as non-governmental organizations (NGOs) and media, exposing unsound corporate environmental practices (Greening and Gray, 1994). In this case, poor environmental performance (i.e. non-compliance with industry self-regulation) is translated into lowered legitimacy that is characterized by penalties, bad public image, lower consumer goodwill, and, ultimately, lower firm value (Dowell et al., 2000; Godfrey, 2005). Although the active usage of resources in order to ensure legitimacy has received limited attention in traditional institutional theory, literature on environmental compliance found that resources such as operations management capabilities allow flexible adoption of emerging standards (González-Benito and González-Benito, 2008; Oliver and Holzinger, 2008).
Scholars of institutional entrepreneurship build on findings from institutional theory and examine how organizations influence the establishment of broadly applied institutional practices and demands such as rules, norms, and standards (DiMaggio, 1988; Powell, 1988). In the terminology of this literature, institutional entrepreneurs are actors who “create a whole new system of meaning that ties the functioning of disparate sets of institutions together” (Garud et al., 2002, p. 196). They integrate their institutional environment into their strategic considerations to actively change institutional demands (Durand and McGuire, 2005; Oliver, 1991, 1997; Zimmerman and Zeitz, 2002) and to realize opportunities (George et al., 2006).

When institutional entrepreneurs establish new institutions, a fragmented social situation with a range of competing institutional practices, competing authority structures, and social networks may emerge. These can be divided into “friends” (i.e. allies to the institutional entrepreneur) and “enemies” (i.e. defenders of the institutional status quo) with respect to the intended institutional change (Misangyi et al., 2008). In order to win this competition in the institutional field, the institutional entrepreneur and its allies must exploit resources to bargain for acceptance from further important constituencies (Hargrave and van de Ven, 2006).

In this context, resources are any input factors employed by institutional entrepreneurs to influence institutional change (Dacin et al., 2002; Lawrence, 1999), either alone or in collective alliance formations (Hargrave and van de Ven, 2006). More specifically, resources described in institutional entrepreneurship range from commonly accessible input factors, such as financial or human capital, to highly complex resources, like social capital.

Several resources used by institutional entrepreneurs have been described so far: economical capital of the entrepreneur (Howard-Grenville et al., 2007), the capability of writing widely acknowledged texts (Etzion and Ferraro, 2006; Munir and Phillips, 2005; Phillips et al., 2004), profound technical know-how (Maguire et al., 2004), political, social, and analytical skills (Fligstein, 1997; Garud et al., 2002; Perkmann and Spicer, 2007), social capital of an organization with institutional actors (Hamprecht, 2006; Howard-Grenville et al., 2007), the ability to educate stakeholders (Marcus and Anderson, 2008) as well as to imitate existing arrangements (Hargadon and Douglas, 2001), robust technical designs (Hargadon and Douglas, 2001), cultural capital of the entrepreneur (Howard-Grenville et al., 2007), and domain-relevant expertise (Lawrence et al., 2005).

Core ideas of institutional entrepreneurship have been related to the field of sustainability. While being aware of the disciplinary effect of institutional pressures, an organization may proactively identify sustainability issues and (re-)shape the fundamental nature of how public policies, norms, and standards for environmental and social performance are defined (Buysse and Verbeke, 2003; Oliver and Holzinger, 2008). One prominent way to influence institutional demands is to establish voluntary sustainability initiatives in the form of policies, codes of conducts, management systems, programs, certification schemes, or roundtables (Hamprecht, 2006). These voluntary sustainability initiatives may help to overcome the environmental or social problems commonly faced by a collective of organizations (Barnett and King, 2008), limit the risk of unwanted laws, societal norms, or standards being externally imposed (King and Lenox, 2000), and help to raise the institutional expectations that competing organizations face (Aragón-Correa and Sharma, 2003). As such, voluntary sustainability initiatives help to control potential competitive disadvantages due to the eventually higher costs of environmentally and socially friendly practices.
(Zadek, 2004), encourage environmental “watchdogs” to investigate more intensely into competitors’ activities (Bansal and Clelland, 2004), pressure competitors to also invest in similar sustainability strategies (McWilliams et al., 2002), and create market entry barriers hindering environmentally or socially unconscious supply chains to supply the market (Dean and Brown, 1995).

However, resources that are particularly necessary to establish voluntary sustainability initiatives, to overcome the institutional competition of diverse logics, and to finally affect the intended institutional change have not been analyzed (Wright et al., 2005; Hamprecht, 2006). In this context, we introduce the concept of key resources that enable institutional entrepreneurs to establish voluntary sustainability initiatives and to win the competition of opposing existing and emerging institutional practices applied in supply chains (Misangyi et al., 2008). In fact, the identification of such key resources still has to happen in institutional entrepreneurship (Hamprecht and Sharma, 2006). Specifically, more research on resources is needed in the context of voluntary sustainability initiatives which is characterized by high complexity due to several intersecting performance dimensions (Bansal, 2005) and a confusing multiplicity of affected stakeholders and values (Hamprecht and Sharma, 2006).

The resource-based view emphasizes specific resources that explain the unique (i.e. competitive) advantage of firms (Barney, 1991; Peteraf, 1993) and mechanisms that prevent competitors from acting in the same way (Barney, 1991). Resources are defined as “all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by the firm that enables the firm to conceive and implement strategies that improve its efficiency and effectiveness” (Barney, 1991, p. 101). Resource-based scholars draw on a definition of attributes that require resources to be valuable, rare, difficult to duplicate, and non-substitutable to contribute to sustained competitive advantage (Barney, 1991)[1].

Transferring these ideas into institutional entrepreneurship logic, we argue that the concept of resource value specifies the effectiveness of a resource in achieving the intended institutional change. Simultaneously, resources have to be rare, difficult to duplicate, and non-substitutable in order to rule out competitive parity of different companies (Barney, 1991), preventing defenders of the institutional status quo or further competing actors in the institutional field from achieving an institutional change in other directions (Hamprecht and Sharma, 2006). For example, the financial resources of an institutional entrepreneur might not be sufficient for enabling institutional change as competing actors might easily access a similar amount of capital. In order to prevent competitors from imitating the resources of the institutional entrepreneur, the literature addresses path dependencies, social complexity, and causal ambiguity as mechanisms (Amit and Schoemaker, 1993; Dierickx and Cool, 1989; Itami, 1987; Reed and DeFillippi, 1990; Rumelt, 1984; Teece, 1987). However, the creation and establishment of institutional arrangements typically involves collective action formations of multiple organizations (Dorado, 2005; Hargrave and van de Ven, 2006). Hence, key resources of the institutional entrepreneur could span firm boundaries in interconnected constellations (“interfirm alliances/networks”) (Gulati, 1999; Lavie, 2006), allowing the mobilization of external resources or entire networks in order to achieve the intended change in institutional practices (Hargrave and van de Ven, 2006). Such key resources can be categorized into relation-specific assets, complementary resources, knowledge-sharing routines, and effective governance mechanisms (Dyer and Singh, 1998), as well as social capital on the network level (Burt, 1997; Nahapiet and Goshal, 1998). To protect the value created by those
resources, Dyer and Singh (1998) stress asset interconnectedness, partner scarcity, and resource indivisibility as rent preservation mechanisms.

Literature on the resource-based view already provides resources that contribute to the formulation of sustainability-related strategies, such as continuous improvement (Christmann, 2000, Hart, 1995), a shared vision within the company (Hart, 1995), high-order learning (Sharma and Vredenburg, 1998), relationships with external stakeholders (Hart, 1995, Katsoulakos and Katsoulacos, 2007), stakeholder involvement (Sharma and Vredenburg, 1998), green supply chain management practices (Rao and Holt, 2005), international experience, working capital management skills, organizational slack (Bansal, 2005), and political management capabilities (Oliver and Holzinger, 2008). However, this literature emphasizes how these resources affect an organization’s environmental or social performance and ultimately its financial performance (Klassen and McLaughlin, 1996; Russo and Fouts, 1997; Waddock and Graves, 1997). Instead, we aim to identify key resources in the context of institutional entrepreneurship leading to institutional change and ultimately legitimacy. Specifically, the objective of this article is to formulate propositions on the suggested relation between organizational resources and the institutionalization of a voluntary sustainability initiative.

3. Research method
We chose to conduct inductive, exploratory case study research due to the lack of both detailed theory that addresses our research phenomenon and empirical evidence on key resources for establishing voluntary sustainability initiatives (Eisenhardt and Graebner, 2007). Of the existing inductive research strategies, we chose “analytical induction” (Manning, 1982).

3.1 Case selection
To ensure external validity and to provide a stronger base for theory building compared to single-case studies, we chose a setting of comparative case studies in different contexts (Gibbert et al., 2008; Yin, 2003). In order to allow a generalization of the findings, we used a theoretical sampling logic (Eisenhardt and Graebner, 2007). Cases were chosen for theoretical, not statistical, reasons as this facilitates the development of theory (Eisenhardt, 1989). Therefore, we analyzed examples of leading voluntary sustainability initiatives based on proactive interorganizational sustainable supply chain strategies that have already realized the intended institutional change. In our study, the analysis of the chosen initiatives allowed us to directly identify resources that were key for establishing voluntary sustainability initiatives. A holistic view of the establishment of voluntary sustainability initiatives provided rich data for the identification of propositions (Scholz and Tietje, 2002). However, we formulated our propositions from the internal initiative view of the focal institutional entrepreneur (Möller, 2006).

We ensured construct validity by selecting cases suited to exemplify the focal phenomena of our study (Eisenhardt and Graebner, 2007) and by gathering and combining data from different parties and existing publications (Yin, 2003). At the beginning of our case selection process, we created a long list of 80 voluntary sustainability initiatives which could potentially be included in our analysis by conducting searches on the internet, in databases, and research on voluntary sustainability initiatives (e.g. Carmin et al., 2003). We then applied three main criteria to choose the ones we wanted to focus on: first, we selected only cases in which a
company established a voluntary sustainability initiative that included a broad range of stakeholders and supply chain partners. This way, we could analyze the (inter-)organizational means of establishing the respective voluntary sustainability initiative. Additionally, studying strategies and roundtables involving multiple stakeholders and supply chain partners allowed us to gain access to many different sources of evidence. Second, we included only voluntary sustainability initiatives that were accepted by several stakeholders since broad acceptance is the organizational source of legitimacy and an indicator for the successful establishment of a voluntary sustainability initiative (Dacin et al., 2007; Freeman, 1984; Hamprecht and Sharma, 2006). In order to assess acceptance, we referred to the number of members in the initiatives and also investigated publicly available statements from stakeholders. In this work, we focused on strategic financial and societal stakeholders (i.e. stakeholders mainly interested in the environmental and social performance of a strategy) since tensions between these two groups have been highlighted (Hamprecht and Sharma, 2006), and also included supply chain partners as they were in the focus of our analysis. Third, we selected only voluntary sustainability initiatives applying codification and enforcement mechanisms (such as certification and external monitoring). These initiatives are more likely to achieve consensus on the interpretation of the strategy among the participating organizations, to contribute to the protection of natural and human resources, to minimize the risk of free-riding by organizations with poor sustainability performance, and to enhance acceptance by society (King and Lenox, 2000; Rivera and DeLeon, 2004; Terlaak, 2007).

As a result of this stepwise selection process, we chose to investigate five voluntary sustainability initiatives: the Roundtable on Sustainable Palm Oil (RSPO) triggered by the Swiss retailer Migros and the World Wide Fund For Nature (WWF) (Falck and Heblich, 2007; Hamprecht, 2006), the Tikhvin Chalna initiative launched by the German publishing house Axel Springer, the Roundtable on Responsible Soy (RTRS), which is based on the Basel Criteria defined by the Swiss retailer Coop and the World Wide Fund For Nature (WWF), the Marine Stewardship Council (MSC) initiated by Unilever, and the Sustainability Agriculture Initiative (SAI) co-founded by Nestlé. Table I provides the main characteristics of these initiatives. Table II provides some illustrative quotes showing the acceptance of these initiatives.

### 3.2 Data collection

While we conducted three case studies – RSPO, Tikhvin Chalna and RTRS – ourselves, we reviewed secondary data for MSC and SAI, two well-known initiatives (Fowler and Heap, 1998; Hamprecht et al., 2005; Hamprecht, 2006; Porter and Kramer, 2006; Reinhardt, 2005; Nick et al., 2006). We complemented this secondary data with additional interviews with representatives of the initiatives to include information that was missing in the secondary data to answer our research question.

In order to ensure construct validity, we followed the same three-step process for collecting data from different sources for each case (Gibbert et al., 2008). First, we consulted texts published on the web pages of the voluntary sustainability initiative, its initiator, and its participants (such as regulators, industry associations, consultancies, or NGOs). These presentations, results from stakeholder workshops, and other statements were analyzed with respect to intra- and interorganizational resources. Furthermore, we searched databases such as Factiva and Business Source Premier for newspaper articles that reported on the development of the initiative.
Table 1. Case study characteristics

<table>
<thead>
<tr>
<th>Case study</th>
<th>RSPO</th>
<th>Tikhvin Chalna initiative</th>
<th>Basel Criteria and RTRS</th>
<th>MSC</th>
<th>SAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger of interorganizational sustainable supply-chain strategy</td>
<td>Emerging demands of NGOs</td>
<td>Emerging relevance of corporate social responsibility in society</td>
<td>Emerging demands of NGOs</td>
<td>Emerging pressure from NGOs and long-term supply of business-critical resource</td>
<td>Raising societal awareness of agricultural supply-chain practices by Max Harvelaar and the ICA</td>
</tr>
<tr>
<td>Aim of interorganizational sustainable supply-chain strategy and initiative</td>
<td>Promote the growth and use of sustainable palm oil (important vegetable oil in the food and non-food industries) by setting up criteria and certification schemes throughout the supply chain</td>
<td>Improve social and environmental aspects of sustainability in international wood supply chains reaching from Russian forests to western consumers by exploring and implementing best practices</td>
<td>Act as a forum to develop and promote criteria for the production of soy on an economically viable, socially equitable, and environmentally sustainable basis</td>
<td>To safeguard the world’s seafood supply by promoting the best environmental choice</td>
<td>Act as a food industry platform to develop and communicate sustainable agricultural practices that are harmonized across the food chain through the involvement of all relevant stakeholders</td>
</tr>
<tr>
<td>Initiator</td>
<td>Migros/WWF</td>
<td>Axel Springer</td>
<td>Coop/WWF (Basel Criteria)</td>
<td>Unilever/WWF</td>
<td>Nestlé/Danone/Unilever</td>
</tr>
<tr>
<td>Codification, enforcement mechanisms</td>
<td>Criteria for production as well as supply-chain processes are defined “RSPO Code of Conduct” and the certification scheme are published, “RSPO Grievance” is founded to take up public complaints Organizations need third-party certification and RSPO authorization</td>
<td>Processes and criteria are defined and benchmarked continuously The NGOs Transparency International and the Karelian Research Center monitor the project Their experts critically review the project</td>
<td>Members are encouraged to report annually on their activities toward promoting sustainable soy production, processing, and consumption, to the RTRS Secretariat Initial criteria for production and supply-chain practices, a</td>
<td>Criteria for sustainable fishing and supply-chain practices exist “Code of Conduct” and different certification schemes are published Organizations need third-party certification and MSC authorization for claiming the strategy</td>
<td>Members are encouraged to report annually on their activities toward promoting sustainable agricultural practices A database exists codifying the strategy by objective statements, a description of the initiatives approach as well as illustrative case studies</td>
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<tr>
<th>Case study</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Involved stakeholders</td>
<td>10% NGOs, 4% banks/investors, 61% supply-chain partners from all supply-chain stages, 25% others</td>
<td>NGOs (customers), suppliers and horizontal alliance partners (TetraPak, Time Inc., Random House, UK)</td>
<td>NGOs, banks/investors, supply-chain partners from all supply-chain stages</td>
<td>Financial support by US and UK Foundations, statutory, corporate members, NGOs &gt; 433 business organizations supporting MSC certification</td>
<td>23 actors of the downstream coffee supply chain, stakeholder dialogues with farmers, cooperation with industry organization</td>
</tr>
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</table>

Table I. Sustainable supply chain strategies
### Stakeholders Representative quotes

**Migros – RSPO**

- **NGOs WWF (co-founder of the RSPO):** “The WWF believes that sustainable palm oil production is the best way to meet the world’s growing palm oil needs without further damaging forests and people. The ratification of the RSPO criteria is a crucial first step in the right direction”
- **Friends of the Earth (FoE):** “Friends of the Earth whole-heartedly welcomes genuine steps being taken by industry towards increased sustainability and wishes the delegates at the RSPO all best wishes [for the further development of the initiative]”

**Governmental organizations**

- **United Nations:** “Migros actively approached the WWF and developed criteria for the sustainable cultivation of palm oil. Now [in 2002] we have certified three suppliers covering the total demand of the production of Migros-manufactured products. For this project Migros received an UN award at the Johannesburg Summit of the United Nations in August 2002”

**Banks**

- **HSBC:** “As the demand for palm oil continues to grow and the industry expands, there is increasing concern over the sustainability of the methods used for production. The Round Table on Sustainable Palm Oil officially began in 2003 in an attempt to monitor the sustainability of production as well as to encourage and support companies, enabling them to produce in a sustainable manner”

- **Rabobank:** “The Rabobank’s activities in Indonesia include operating as a financier of oil palm plantations. In connection with continual reports on damage to the tropical rain forest due to the construction of plantations and the social unrest relating to certain plantations, the Rabobank now explicitly defined its policy for this sector [in consultation with experts and NGOs]”

**Palm oil processors**

- **Aarhus Karlshamn UK:** “We believe that production of palm oil and the creation of new plantations must be done in a sustainable manner based on economic, social and environmental viability. Towards this end, the RSPO is developing a credible definition of sustainable palm oil production and will be promoting the implementation of best management practices that comply with this definition”

**Consumer goods manufacturers**

- **Unilever:** “Unilever is one of the founding members of the RSPO. The RSPO is a unique platform aiming at the promotion of a sustainable production of palm oil through the collaboration of all supply chain members and an open dialogue of partners from manufacturers, industry, retailing, investors and non-governmental organizations”

**Axel Springer – Tikhvin Chalna initiative**

- **NGOs Transparency International:** “The project has certainly raised awareness on the issue of illegality and corruption in Russian supply chains and the idea that companies can do something among it”

- **Karelian Research Institute:** “It can be said that the successfully implemented project ‘From Russia […] with Transparency’ illustrates the potential of a joint effort by partners of an international wood and paper supply chain. The gained experience can be beneficial for future projects in enhancing sustainability”

**Governmental organizations**

- **World Bank:** “After a publication in a press conference in Helsinki in September 2005 we had a number of applications, which were companies and organizations who called us, saying we want to be part of this project – there was also the World Bank asking us if they could participate”

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**Table II.**
Acceptance of interorganizational sustainable supply-chain strategy by different stakeholder groups taking part in the voluntary sustainability initiatives (continued)
Stakeholders Representative quotes

**Suppliers**

StoraEnso: “We had very positive results actually for all of the participants and maybe for the Russian forestry sector in general”

Shuyales: “At Shuyales, we are aware that our timber enters markets sensitive to environmental concerns. We understand that joining the project means a commitment to the project’s priority areas of environmental and social responsibility. We are positive that it is necessary to improve technologies and increase the motivation for high-quality work”

**Manufacturer**

TetraPak: “The major thing in this project was to see that we can actually combine different elements of the same value chain, different players or actors in the value chain in different areas and activities and instead of getting one to put pressure on the other working together, agree on the objectives and try to have a partnership so the achievements happen for everyone”

**NGOs**

WWF: “This first shipment, although small, is proof that soy can be produced and sourced in a way that respects both people and nature. The soy industry has no more excuse not to act more responsibly […]. Since consumers don’t have to pay more for certified soy than for conventional GMO-free soy, it should be an easy decision to make [for soy buying companies to use Basel Criteria certified soy] […] We believe that the Basel Criteria will also encourage soy producers, agents, retailers and meat and dairy producers to commit to environment-friendly soy in the mid-term”

Solaridad: “Because of the controversy surrounding it, soy has rapidly become an important theme for Solidaridad. Solidaridad is working on several fronts to help find solutions, in terms of both large-scale and small-scale production: participating in the RTRS”

**Banks**

ABN AMRO: “Of all agricultural commodities, soy attracted the highest level of attention from NGOs and consumers in 2006. Soy production and processing has many impacts, both positive and negative. With this in mind, ABN AMRO was the first bank to join an initiative called the Roundtable on Responsible Soy”

**Supply Chain Partners**

Cargill: “As a member of the RTRS, Cargill is actively working with other key global organizations to help agree and put in place global criteria for a responsible and sustainable approach to soy production”

fenaco: “fenaco steht einem nachhaltigen Sojaanbau in Brasilien, wie er in den Basler Kriterien definiert ist, positiv gegenüber. fenaco unterstützt das Projekt, indem sie dem Import von nachhaltig produziertem und entsprechend zertifiziertem Soja den Vorzug gibt, ohne dabei die Wirtschaftlichkeit der nachgelagerten Stufen (z.B. Mischfutterhersteller, Tierhalter) aus den Augen zu verlieren”

Imcopia: “Brazilian harvest the innovative side has been expanded further to include an important new one making IMCOPA a pioneer in this specific area: ProTerra, a sustainability certification based on demands from industry, NGOs as well as from private consumers”

**Consumer goods manufacturers**

Unilever: “We are also members of the Roundtable on Responsible Soy, which seeks to establish agreed Principles and Criteria for responsible soya production. After thorough deliberation, in 2006 participants agreed on the key sustainability issues linked to soya production. They also agreed to formalize the Roundtable as a permanent organization”

(continued)

Table II.
Second, we conducted interviews with key players involved in the development and implementation of the voluntary sustainability initiative. We started by interviewing senior corporate managers responsible for sustainability issues at the initiating company, as well as the managers responsible for the implementation of the specific sustainability initiative. The identification of further experts followed a snowball principle (Sharma and Vredenburg, 1998). During the interviews, relevant actors within or outside of the company were identified who we interviewed later. Each

<table>
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<th>Stakeholders</th>
<th>Representative quotes</th>
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<tr>
<td><strong>Unilever – MSC NGOs</strong></td>
<td>DOEN Foundation: “We’re very impressed by the wide ranging impacts that the MSC achieves. This is a highly professional organization that makes its promises come true” North Sea Foundation: “The problems caused by fisheries to valuable marine ecosystems are enormous. Being involved in the Marine Stewardship Council makes you part of the solution. This creates a positive drive for change” WWF: “To add further momentum to the MSC’s work, in 2005 WWF established a Sustainable Seafood Choices project aimed at the retail and market end of the seafood industry”</td>
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<tr>
<td><strong>Supply Chain Partners</strong></td>
<td>Aeon Co Ltd.: “Six months after we launched the first MSC products, our customers had bought ten million items of MSC-labelled seafood. We feel the message on fishery resources is gradually but steadily penetrating into Japanese customers’ awareness” METRO Group: “As the largest fish retailer in Europe, we co-operate closely with the independent MSC to promote sustainable fishing. The MSC gives credibility and transparency to sustainable and well-managed fisheries” South West mackerel handline fishery: “It is essential to continue promoting products carrying the MSC label, not only for the sake of my livelihood, but for the future of the entire fishing industry”</td>
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<td><strong>Nestlé – SAI NGOs</strong></td>
<td>Rainforest Alliance: “Awarded responsible Nestlé manager for the establishment of SAI for his stance on the management and his contribution in developing SAI”</td>
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<td><strong>Investors</strong></td>
<td>SAM: “[SAI is an important step to] secure access to the top grade raw materials in the area of multiple tainted food scandals, a ballooning world population and shrinking resources”</td>
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<tr>
<td><strong>Businesses</strong></td>
<td>Elders: “[SAI is] a principle to which Elders also subscribes. Elders is a large, diverse agribusiness whose core focus is the provision of products and services for the nation’s primary producers. As a company, we’ve been working alongside Australian farmers for almost 170 years. Elders’ involvement in Australian agriculture doesn’t end at the farm gate. In fact, our company is responsible for the establishment and development of successful long-term trading links between our primary producers and the global customers and end-users of their goods” Coca-Cola: “In 2005, we joined the SAI, a food industry group that engages stakeholders along the agricultural supply chain to share knowledge and support the development and implementation of internationally accepted standards for sustainable agriculture. We participate in the SAI Platform Working Group on Fruits, which focuses on developing sustainable fruit production practices and improving environment and socio-economic conditions in fruit-growing communities”</td>
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interview transcript was verified for accuracy by the respective interview partner and transcripts were analyzed shortly after (Yin, 2003). Initial results were addressed in following interviews. Follow-up talks were conducted with earlier interview partners in order to verify themes that emerged in subsequent interviews. Prior to each interview, a table of events was sent to the informants. While no theory was communicated in advance, this table helped to structure the interviews and validate the data gathered in previous interviews (Maguire et al., 2004).

Third, discrepancies were explored which emerged while comparing the narrative accounts of the interview partners with the data gathered previously. To settle these discrepancies, further company internal and external texts were consulted that addressed these disputed issues. Consequently, this served as further validation of the data collected during the interviews. This approach of comparing several data sources helped us to uncover the “true story” of each case study, the description of the events, and their relationships (Pentland, 1999).

For the three new cases, we conducted 20 semi-structured interviews of about 29 hours in total with the involved senior and middle management of the participating organizations in the voluntary sustainability initiative. For the two existing cases, we led two interviews of about three hours in total.

3.3 Data analysis
During each of the three stages of data collection, the emerging concepts were categorized and engaged in constant comparison (Eisenhardt, 1989). Following each interview and each analysis of a set of documents, key quotes were summarized in data analysis sheets and structured mind maps. The emergence of additional evidence for these concepts was verified in the analysis of further documents from other sources and in interviews with further partners. In order to ensure internal validity, we explicitly reflected the theories contributing toward explaining the research phenomenon by combining the initial review of existing concepts in the literature of institutional entrepreneurship and the resource-based view with empirical data gathering (Gibbert et al., 2008). In this context, we specifically investigated constructs described in corporate sustainability literature. However, during the process of analyzing data, we widened our focus toward stakeholder management, interorganizational learning, innovation management, and supply chain management, which mentioned institutional entrepreneurship or the resource-based view and its enhancements toward interconnected firms. Relevant (i.e. repeatedly identified) concepts were abstracted until we found a construct in the literature that could be used to comprise the concept (Sharma and Vredenburg, 1998). In total, the abstraction of the data comprised three levels: quotes as identified in data sources (first-order schemes), summaries of related quotes (second-order schemes), and links to the existing literature body (final schemes). Abstraction and clustering of first-order schemes were needed for three reasons: first, in order to consider logical connections between identified themes, second, to cope with heterogeneity of the identified themes, and third, to account for different terms and descriptions used for the same theme. The abstraction toward second-order schemes was achieved via the independent analysis of two researchers and a subsequent discussion if discrepancies occurred. While some of the emerging schemes suggested existing labels from resources mentioned in resource-based view and institutional entrepreneurship literature, other themes were abstracted into generic descriptive labels.
4. The design of voluntary sustainability initiatives and (inter-)organizational capabilities

In this section, we first briefly describe our five cases of voluntary sustainability initiatives as well as their respective context and explain how they fit to our theoretical framework. Then we discuss the resources that appear to have been key to the establishment of those voluntary sustainability initiatives.

4.1 Overview of cases

*International RSPO.* The initial project of Migros, a major Swiss retailer, to follow strict sustainability criteria for palm oil supply chains was triggered by a newspaper article which showed a link between deforestation of the rainforest and the production of palm oil. This emerging normative demand prompted Migros to proactively contact NGOs (among them the WWF) and to work out a strategy on how to purchase sustainably produced palm oil. Recognizing that their own purchasing volumes were not sufficiently large and that the differentiation from traditional products did not allow extra revenues to be generated, Migros and WWF communicated the new supply chain strategy and invited an international auditorium of companies and further stakeholders to participate. By establishing the international RSPO, Migros addressed the problem and urged competitors and further players in the palm oil supply chain to comply with stricter standards:

> Ten years from now, a sustainable production of palm oil should be business as usual. We want to achieve a worldwide change of the palm oil production (Interview with the Head of Environmental and Ethical Projects of the Federation of Migros Cooperatives in 2005, taken from Hamprecht, 2006).

*Tikhvin Chalna.* Similarly, potential risks deriving from emerging normative demands in the corporate social responsibility debate prompted Axel Springer to rethink their supply chain strategy for Russian wood. Being one of the first movers in corporate social responsibility in the publishing business, Axel Springer realized that current Russian practices in the logging sector could spark future public discussions that might put pressure on Axel Springer, a key player in these supply chains. In early 2002, Axel Springer and one of their main suppliers started a joint initiative, the so-called “Tikhvin Chalna project,” to redesign the supply chain processes in two of the major Russian logging regions to improve their social and environmental performance. In addition, other major players in the publishing sector as well as critical reviewers from several NGOs were invited to participate in the design of the new voluntary sustainability initiative:

> Fiber from Russia is a strategic resource for the paper industry. It is in the interest of the entire supply chain to stimulate the development of a sustainable and long-term forest industry in Russia. This is important to secure continuous reliable supply of wood through mitigating risks and to ensure that products do not lose their credibility to customers in one of the most demanding markets (taken from the end report of the “Tikhvin Chalna project,” see www.tikhvinproject.ru).

*International RTRS.* In the year 2004, the Swiss retailer Coop and the WWF developed criteria for responsible soy supply chains. This collaboration, that also involved other NGOs, led to the definition of the “Basel Criteria” for soy production. Recognizing that the switch to sustainable soy according to the Basel Criteria would challenge the current configurations and infrastructure of Swiss supply chains, Coop and the WWF established a Swiss industry roundtable with the objective of getting all relevant Swiss
retailers, manufacturers, mills, and suppliers in the soy supply chain to comply to the new standard. Furthermore, this coalition decided to bring the topic to an international audience which led to the foundation of the International Roundtable on Responsible Soy hosted by the WWF:

The Round Table on Responsible Soy Association […] brings together those concerned with the impacts of the soy economy. It’s working to define what is responsibly-grown and processed soy and to promote the best available practices to mitigate negative impacts throughout the value chain (taken from the homepage of the RTRS, www.responsiblesoy.org).

MSC. Emerging normative demands from consumers, prominent public requests by Greenpeace to label all fish products with the precise location of the catch, and competitive risks of long-term fish supply motivated Unilever to change its supply chain strategy for frozen fish products. In order to maintain its frozen fish business, Unilever realized that the reconfiguration of their fish supply chains could not be accomplished by them alone because the firm did not have sufficient purchasing power to force their fish suppliers (including fisheries) to comply with their new sustainability strategy (Fowler and Heap, 1998; Hamprecht, 2006; Nick et al., 2006). In consequence, Unilever set up a roundtable together with the WWF which constituted the MSC. Also in this case, several important stakeholders were involved for developing criteria for sustainable fish supply chains:

Our mission is to use our ecolabel and fishery certification programme to contribute to the health of the world’s oceans by recognising and rewarding sustainable fishing practises, influencing the choices people make when buying seafood, and working with our partners to transform the seafood market to a sustainable basis (taken from the homepage of the MSC, www.msc.org).

SAI. When Fair Trade labels became publicly recognized, Nestlé intensified its engagement in corporate activities to improve the environmental and social performance of their agricultural supply chains (Hamprecht et al., 2005; Hamprecht, 2006; Reinhardt, 2005). Nestlé started with an internal initiative called Sustainability Agriculture Initiative Nestlé (SAIN), which encourages its local operations to purchase directly from farmers and to help those farmers to establish farming operations that comply with defined sustainability requirements (Porter and Kramer, 2006; Reinhardt, 2005). Sometime later, Nestlé drove the establishment of the SAI to share its experiences from SAIN with other consumer goods manufacturers and suppliers (Reinhardt, 2005):

SAI Platform is an organisation created by the food industry to communicate worldwide and to actively support the development of sustainable agriculture involving the different stakeholders of the food [supply] chain. SAI Platform supports agricultural practices and agricultural production systems that preserve the future availability of current resources and enhance their efficiency. This increases agriculture’s contribution to the optimal satisfaction of society’s environmental, economic and social requirements (taken from the homepage of SAI, www.saiplatform.org).

These five cases show strong commonalities. Each initiator of the respective voluntary sustainability initiative had access to a set of specific resources that were used to implement its proactive interorganizational sustainable supply chain strategy. Frequently, interviewees expressed the particular importance of specific resources that were either owned by the initiating company or derived from its relationships with other institutional actors, describing them as key for establishing the respective
voluntary sustainability initiative. This identified pattern supports institutional entrepreneurship theory arguing that institutional entrepreneurs rely on resources to change an existing or create a new institutional field (Dacin et al., 2002; Lawrence, 1999). Scholars of institutional entrepreneurship argue that such organizations try to ally with partners if their own resources are not sufficient to force the institutional change (Hargrave and van de Ven, 2006; Lawrence et al., 2002; Peng, 2003). This pattern also supports the resource-based view since the interview partners described key intra- and interorganizational factors that specifically enabled the establishment of the voluntary sustainability initiative (Barney, 1991; Dyer and Singh, 1998).

The detailed analysis of the interview data led to the identification of the following six capabilities shown in Table III.

4.2 External stakeholder integration
In the majority of our case studies, the initiating organizations explored their proactive interorganizational sustainable supply chain strategies in close collaboration with NGOs. For example, in order to develop the criteria on sustainable palm oil supply chains, Migros sought discussions with the WWF and ProForest. The identification of competent and credible NGOs and subsequent relationship building allowed Migros to explore specific knowledge in sustainability and certification systems. In addition, it ensured the legitimacy of the new strategy in society:

The WWF could teach us what is all necessary for a profound sustainable forest management while we could tell them what was realistic from a supply chain point of view. This led to a first idea for a list of criteria on how to produce palm oil in an ecological and social manner and being economically realizable. [...] The criteria were discussed with local NGOs for the domestic interpretation. This is not only important because of their know-how. It also shows that regional differences are taken seriously which then reduces the risk of project failure. (Interview with the Senior R&D Manager of the Federation of Migros Cooperatives in 2007).

Being seen as the partner of the WWF is worth gold if you are talking about the credibility of such a project (Interview with the Senior R&D Manager of the Federation of Migros Cooperatives in 2003 taken from Hamprecht, 2006).

We observed a similar relationship in the Unilever case, while the NGO played a more consultant-like role in the Tikhvin Chalna initiative of Axel Springer. The Unilever case also shows the effect of neglecting the involvement of other strategic stakeholders such as suppliers. Not having integrated the fishermen to promote their point of view before initiating the international roundtable meant that these affected parties initially felt underrepresented in the development of the sustainable fishing criteria (Hamprecht, 2006). As a consequence of the initial lack of support from fish suppliers, prominent NGOs such as Greenpeace expressed their doubts about the overall legitimacy of the new strategy. These critiques only calmed with the certification of two large fisheries almost eight years later (Nick et al., 2006).

In all case studies, existing stakeholder relationships were based on strong “competence trust” and “goodwill trust” (in the sense of Das and Teng, 2001), shared values toward a market-driven strategy, and frequent informal as well as formal communication. These relationships were difficult to set up and required a long relationship building process. They were also rare because only a limited number of solution-oriented NGOs were willing and able to build up such relationships. However, once established they allowed constructive development of the sustainability criteria for the supply chains that have become accepted within the internal organization, the supply chain partners, and eventually within the entire industry.
<table>
<thead>
<tr>
<th>First-order schemes</th>
<th>Second-order schemes</th>
<th>Final schemes</th>
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<tbody>
<tr>
<td>Ability to sense societal concerns early</td>
<td>Ability to identify relevant strategic stakeholders</td>
<td>External stakeholder integration <em>(Sharma and Vredenburg, 1998)</em></td>
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<tr>
<td>Ability to identify best-fitting stakeholder partner</td>
<td>Ability to integrate strategic stakeholders in the development of strategies</td>
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<tr>
<td>Ability to evaluate and select stakeholders by complementary resources as knowledge, image, and credibility</td>
<td>Ability to build relationships with strategic stakeholders</td>
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<td>Ability to “flirt” with NGOs</td>
<td>Tacit knowledge sharing with strategic stakeholders</td>
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<td>Ability to solve the problem jointly with strategic stakeholders</td>
<td>Trust of strategic stakeholders</td>
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<td>Ability to establish dialogue with stakeholders</td>
<td>Gate-keeping function with strategic stakeholders</td>
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<tr>
<td>Ability to share knowledge with strategic stakeholder</td>
<td>Gate-keeping function that steers collaborative projects with external stakeholders</td>
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<tr>
<td>Ability to maintain frequent collaboration and communication with business partners</td>
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<tr>
<td>Stakeholders’ trust in the initiator’s willingness to solve environmental problem</td>
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<tr>
<td>Stakeholders’ trust in the initiator’s competence to solve environmental problem</td>
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<td>Ability to understand key stakeholder pressures</td>
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<td>Ability to understand the stakeholder perspectives of the operations</td>
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<td>Ability to understand what corporate functions and supply-chain partners are affected by stakeholder interests</td>
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<tr>
<td>Ability to steer the societal collaboration process</td>
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<td>Central project management for sustainability projects</td>
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<tr>
<td>Ability to integrate affected corporate functions into the development of the new approach</td>
<td>Ability to integrate affected business functions early in the development of the new supply-chain practices</td>
<td>Cross-functional integration <em>(Verona, 1999)</em></td>
</tr>
<tr>
<td>Ability to access knowledge of different organizational functions in the development of the supply-chain strategy (e.g. to avoid pitfalls)</td>
<td>Ability to coordinate the implementation of the new strategy between the affected business functions/units</td>
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<tr>
<td>Ability to distribute information internally to affected process owners and top management</td>
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<tr>
<td>Ability to empower affected functions in the further development and implementation of the strategy</td>
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<tr>
<td>Ability to integrate affected organizational functions in project evaluation</td>
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<tr>
<td>Own budget for project</td>
<td>Ability to access financial resources for the development of radical new supply-chain practices</td>
<td>Management of loosely coupled business units</td>
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<tr>
<td>Ability to take a long-term view of experimental actions in the separate project</td>
<td>Ability to explore new strategies without</td>
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<td>Being free from top management involvement</td>
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<tr>
<td>Ability to develop a strategy without concrete expectations from top management</td>
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**Table III.** Theme analysis of (inter-)organizational capabilities (continued)
<table>
<thead>
<tr>
<th>First-order schemes</th>
<th>Second-order schemes</th>
<th>Final schemes</th>
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<tbody>
<tr>
<td>Ability to explore sustainable supply-chain practices in separate research centres</td>
<td>immediate pay-off or reservations from top management</td>
<td>Supply-chain implementation</td>
</tr>
<tr>
<td>Ability to access financial resources for a project with highly uncertain outcomes</td>
<td>Ability to access human resources (experts) for the development of radical new supply-chain practices</td>
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<tr>
<td>Ability to centralize relevant experts for inventing the new strategy</td>
<td>Ability to integrate emerging innovations into traditional business and supply-chain practices</td>
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<tr>
<td>Ability to transfer emerging strategy to implementation project</td>
<td>Ability to implement the sustainability strategy by collaborating with suppliers</td>
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<tr>
<td>Central storage for emerging knowledge on sustainability</td>
<td>Ability to implement the sustainability strategy by means of purchasing power, supplier dependence and directives (competitive mechanisms)</td>
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<tr>
<td>Ability to handle new approach operationally within the supply chain</td>
<td>Ability to prove implementation of strategy (e.g. via a chain-of-custody system)</td>
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<tr>
<td>Ability to switch to new approach rapidly due to a high degree of supply-chain integration</td>
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<tr>
<td>Direct relations with supply network of “problematic” commodity</td>
<td>Ability to use suppliers’ dependence to implement supply-chain strategy (inviting bids)</td>
<td></td>
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<tr>
<td>Ability to develop suppliers’ performance according to the sustainability strategy</td>
<td>Building purchasing power to implement supply-chain strategy (multiple sourcing; collaborative buying)</td>
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<tr>
<td>Ability to teach suppliers the benefits of implementing the sustainability strategy</td>
<td>Ability to separate sustainable commodity within supply chain</td>
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<tr>
<td>Ability to select willing and capable supply-chain partners</td>
<td>Ability to install monitoring for segregation of sustainable commodity supply chain at each level</td>
<td></td>
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<tr>
<td>Ability to direct suppliers to comply with new strategy</td>
<td>Ability to map and assess own supply-chain operations and judge the effects of the new strategy (costs, feasibility)</td>
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<tr>
<td>Ability to use suppliers’ dependence to implement supply-chain strategy (inviting bids)</td>
<td>Ability to assess different supply-chain options</td>
<td></td>
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<tr>
<td>Ability to develop suppliers’ performance according to the sustainability strategy</td>
<td>Ability to generate (economically and technically) feasible solutions to the environmental problem</td>
<td></td>
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<tr>
<td>Ability to select willing and capable supply-chain partners</td>
<td>Ability to understand and optimize new supply-chain processes</td>
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</tr>
<tr>
<td>Ability to direct suppliers to comply with new strategy</td>
<td>Ability to define specific process steps for implementation approach</td>
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<tr>
<td>Ability to use suppliers’ dependence to implement supply-chain strategy (inviting bids)</td>
<td>Ability to optimize technical and economic feasibility strategy</td>
<td></td>
</tr>
<tr>
<td>Ability to develop suppliers’ performance according to the sustainability strategy</td>
<td>Ability to map own (supply-chain) processes</td>
<td></td>
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<tr>
<td>Ability to assess different supply-chain options</td>
<td>Ability to assess current (supply-chain) practices and processes in terms of their environmental footprint</td>
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<tr>
<td>Ability to generate (economically and technically) feasible solutions to the environmental problem</td>
<td>Ability to improve (supply-chain) processes in a structured manner</td>
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<tr>
<td>Ability to understand and optimize new supply-chain processes</td>
<td>Ability to adhere to defined (supply-chain) process-improvement steps</td>
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<tr>
<td>Ability to define specific process steps for implementation approach</td>
<td>Experiences in process-management</td>
<td></td>
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<tr>
<td>Ability to optimize technical and economic feasibility strategy</td>
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Table III.
Our case findings support the existing theories presented in the initial literature review which argue that the ability to integrate stakeholders is positively related to the formulation of proactive sustainability strategies (Hart, 1995; Sharma and Vredenburg, 1998) and that social capital with respect to toward powerful stakeholders can enable institutional change (Hamprecht, 2006; Howard-Grenville et al., 2007). Based on our case study findings and the literature streams, we define external stakeholder integration according to Sharma and Vredenburg (1998) as the involvement of external stakeholders in the establishment of a company’s strategies, contributing with their knowledge and reputation.

As we have observed in the case studies, external stakeholder integration allows organizations to identify relevant external stakeholders that need to be involved and to communicate with them (Mitchell et al., 1997; Sharma and Henriques, 2005). They allow the building of trust-based relationships with selected strategic external stakeholders (Katsoulakos and Katsoulacos, 2007; Oliver and Holzinger, 2008) in order
to explore those stakeholders’ knowledge (Delmas, 2001; Lavie and Rosenkopf, 2006; Rothaermel and Deeds, 2004; Sharma, 2005) and network positions (Howard-Grenville et al., 2007).

Based on these arguments, we propose:

**P1.** The capability of external stakeholder integration is positively related to the establishment of a voluntary sustainability initiative.

### 4.3 Cross-functional integration

Many interview partners mentioned that it was important to integrate the affected functional departments and people in cross-functional teams during the establishment of the voluntary sustainability initiative in order to ensure its internal acceptance and overall feasibility. For example, Migros integrated the affected functions into the development of the new Migros criteria on sustainable palm oil supply chains – namely the purchasing department, the social compliance department, and corporate communications. This allocation of diverse knowledge and interests allowed Migros to work out and continuously improve an economically and technically feasible solution for the environmental problem, which ultimately led to a broad acceptance within the organization and by external societal and economic stakeholders. Specifically, the integration of the purchasing department allowed Migros and some of its allies in the RSPO to address challenges of current supply chain configurations more effectively so that alternative supply chain implementations were accepted by societal stakeholders. Similarly, the Coop project management for the development of the voluntary sustainability initiative soon decided to share implementation responsibility with the purchasing department. This allowed Coop to prove its commitment to the initiative, thereby facilitating negotiations with other stakeholders. Additionally, the environmental officer at Axel Springer integrated the affected process owners from operations. This was important to assess internal operations and to get their commitment for establishing the Tikhvin Chalna initiative. As a consequence, numerous affected functions continuously contributed their specific knowledge to the development of the new sustainable supply chain criteria and its communication toward strategic stakeholders.

The existence of a central gatekeeper in the organization was also frequently mentioned as an important aspect when setting up the voluntary sustainability initiative. Gatekeeping allows the control of the coordination of the initiative both within the organization and with external parties, resulting in a better understanding and ultimately a better acceptance among the members of the voluntary sustainability initiative. For example, Axel Springer installed a skilled environmental officer, responsible for detecting societal concerns as well as opportunities to improve the company’s own sustainability performance. One main responsibility of this officer was to transfer these ideas into project proposals for the internal process owners. The Tikhvin Chalna initiative is one such project proposal, where the gatekeeper aligned societal as well as supply chain-partners’ interests with the appropriate business functional interests. Although cross-functional teams and gatekeepers as such are increasingly becoming standard management practice, interview partners emphasized that the underlying processes and management systems were explicitly shaped to specific intra- and interorganizational structures. This allowed the teams to capture tacit knowledge instead of relying purely on explicit knowledge. They described this capability as causally ambiguous and
socially complex, involving different functions and employees in coordinated action.

Cross-functional integration has gained limited attention in literature on institutional entrepreneurship and resource-based work in the field of corporate sustainability. In general resource-based literature, cross-functional integration is linked to product development processes and can be defined as a capability that “acts as adhesive by absorbing critical knowledge from external sources and by blending the different technical competencies developed in various company departments” (Verona, 1999, p. 134). As seen in our case studies, this capability typically entails the participation of affected corporate functions in and the coordination (e.g. in form of a central gatekeeper) of cross-functional teams that bring together different sources of expertise (Brown and Eisenhardt, 1995; Eisenhardt and Martin, 2000), both leading to development process efficiency and the effectiveness of the voluntary sustainability initiative in terms of the fit between its characteristics and the institutional demands (Verona, 1999).

Consequently, we propose:

**P2.** The capability of cross-functional integration is positively related to the establishment of a voluntary sustainability initiative.

4.4 Management of loosely coupled business units

In all case studies, the interviewees repeatedly highlighted that it was important that the departments or teams in charge of developing the sustainable supply chain criteria, processes, and technologies were separated and shielded from the operative functions. For example, Coop’s Natura Plan Fund, a business unit operationally independent from the mother company, provided financial resources and substantial freedom to draw the initial draft of the Basel Criteria in cooperation with the WWF. In this organizational unit, the partners who established the voluntary sustainability initiative were not only able to develop the sustainability criteria but were also able to take up and address operational concerns without concrete expectations or reservations from top management. Similarly, Axel Springer’s corporate environmental management department, a department not involved in daily operations, was able to observe current supply chain practices from fresh angles and to advocate new ideas for sustainability practices without any fear of addressing issues concerning social or environmental problems arising from current supply chain operations. The department became a testing environment and a hub for the growing knowledge on sustainability in Axel Springer’s supply chain processes, from where new sustainability practices diffused across the organization. At Migros, a project team with its own budget defined the initial criteria for the new interorganizational sustainable supply chain strategy in a separate project. This organizational quasi-separation allowed an open discussion of critical issues with the WWF and addressed implementation concerns of the production departments at an early stage. In this way, they developed a business case that was accepted both by NGOs and Migros’ operations even before Migros’ top management decision to follow the new standards. In the context of SAIN, Nestlé operated organizationally separate coffee research centres with their own staff and budgets. In these centres, resistant seedlings and varieties of coffee plants were designed to fit local conditions in different geographical areas (Hamprecht, 2006) and partly provided to farmers free of charge. These practices independent from the main agricultural business of Nestlé increased
productivity and reduced poverty at farm level. In consequence, it contributed to the acceptance of Nestle’s efforts in establishing sustainable agricultural practices by farmers and NGOs.

In our cases, the management of the (quasi-)loosely coupled business units challenged the managers of the respective organizational units to balance the exploration of radically innovative strategies in the separated business unit and the fine-tuning and operative roll-out within the company. This required certain tacit capabilities of senior management to shield the department or teams from routine operational activities, while at the same time integrating the explored inventions into the concrete development of new products and processes. This capability was rare as interview partners explained the detailed processes of managing loosely coupled business units as very specific to the respective organization and unique in their respective market.

The capability of managing loosely coupled business units has not yet been explicitly analyzed in the context of sustainability strategies. We define the capability of managing loosely coupled business units based on our case studies and literature of innovation management as the establishment and management of structurally ambidextrous organizational designs which allow a balanced separation and integration of explorative innovation efforts and continuous, incremental improvements (Benner and Tushman, 2003; Ettlie, 1983; Hamprecht, 2006). As such, we were able to observe organizations and their partners in establishing the voluntary sustainability initiative to access organizational slack in the form of human and financial resources (Bansal, 2005) and to address problematic issues without fearing sanctions from the operations units (Morrison and Milliken, 2000). Furthermore, we could see that this capability comprises a concentration of specialists, which possess the freedom to experiment with radical innovations such as fundamentally new interorganizational sustainable supply chain strategies (Mauser, 2001). This way, the capability allows advocating the respective social and environmental issues more effectively (Hamprecht, 2006).

Based on the arguments above, we propose:

\[ P3. \] The capability of managing loosely coupled business units is positively related to the establishment of a voluntary sustainability initiative.

4.5 Supply chain implementation

In the majority of our cases, the implementation of the developed criteria, instruments, and methods within the initiator’s supply chains was crucial for acceptance by societal and economic stakeholders. Migros for example started the implementation of its criteria on sustainable palm oil supply chains by building up a fair relationship with a strategic supplier who committed to taking part in a joint development process for its own operations. Furthermore, Migros established a chain-of-custody enabling them to advise the segregation of sustainable palm oil in its own highly integrated production network and to establish segregation via directives to freight forwarders and controls of shipping papers. At the time when the international roundtable was established, Migros was able to present its already implemented criteria to the broader audience:

In the phase of establishing the international roundtable Migros contributed with their commitment to the “Migros-criteria” on sustainable palm oil [supply chains] to the success of the first meetings. [...] It was very important for us as NGO but also for the business
partners that someone was already able to present practicable criteria already implemented in its supply chain [...] Also, the Malaysian actors were deeply impressed by their [Migros] demonstrated willingness (Interview with the Head of International Projects at WWF Switzerland in 2007).

Similarly, the ongoing implementation and practical use of sustainable agriculture practices by Nestlé in their supply chains were mentioned as a key success factor for establishing SAI within the industry. Nestlé’s engagement in the reconfiguration of its supply chain and its activities to build up strong ties with its suppliers gave the company direct access to the suppliers’ local operations (Reinhardt, 2005). This allowed Nestlé to implement sustainable practices directly within its supply chain (e.g. via supplier development in “coffee-training centers” and weekly radio shows). Based on this experience and results achieved so far, the company then started a broadened roundtable with other fast-moving consumer goods manufacturers to share their implementation experiences. In 2002, the international NGO Oxfam acknowledged Nestlé’s efforts in direct purchasing of coffee from farmers when they rated Nestlé as the second best roaster in managing sustainability (Hamprecht, 2006). Axel Springer followed a different path as it used market mechanisms to motivate its direct suppliers to participate in the project. The company invited several suppliers to assess the proposal on the voluntary sustainability initiative and to apply to become their main partner. After having chosen StoraEnso, a Finnish wood supplier, Axel Springer started to build up a very close relationship with them. StoraEnso ultimately became responsible for the supply chain implementation within its Russian supply network through directives to their local subsidiaries and the development of the local logging companies.

We observed supply chain partner scarcity and relationship specificity (Hunt and Davis, 2008). StoraEnso was the only one of three large suppliers of Russian wood having implemented chain-of-custody mechanisms. Similarly, Migros is a unique retailer in terms of being highly integrated with its own production facilities. The inimitability of Nestlé’s efforts stems from a long history of negotiating and building up direct relationships with local farmers.

Although first resource-based investigations in the field of sustainability address multiple specific supply chain management skills (e.g. Rao and Holt, 2005), we conceptualize supply chain implementation more generally. We define the capability of supply chain implementation as the ability to integrate the lead company with involved supply chain members in order to affect its strategies with collaborative or market-based approaches.

As we have seen in these case studies, demonstration of the lead company’s willingness and ability to use the new sustainability criteria increases cooperation within the network, especially in large supply chain networks (Das and Teng, 2002). Moreover, in resource-based literature, it is generally perceived that green supply chain implementation techniques promote efficiency and synergy among business partners and their lead corporations (Rao and Holt, 2005; Zhu et al., 2008). As these cases have demonstrated, supply chain implementation capability helps to enhance environmental performance, and to achieve cost savings (Rao and Holt, 2005). It affects diverse sub-processes like design, sourcing, production, and distribution (Ciliberti et al., 2008; Zhu et al., 2008) and assists supply chain partners in accepting their responsibilities (Bowen et al., 2001; Carter and Jennings, 2002; DeBakker and Nijhof, 2002; Vachon and Klassen, 2008). In addition, supply chain implementation in the form of good relationships with supply chain partners helps to improve the adoption of new green
technologies and practices within the network (Brass et al., 2004; Suarez, 2005; Vachon and Klassen, 2008).

Based on these arguments, we propose:

\[ P4. \] The capability of supply chain implementation is positively related to the establishment of a voluntary sustainability initiative.

### 4.6 Process improvement

In all cases, interviewees reported that their efforts in continuously optimizing the economic and environmental performance of their supply chain processes were central to the acceptance of the voluntary sustainability initiative by strategic stakeholders. For example, Axel Springer's profound qualified knowledge of its supply chain processes and their environmental performance allowed them to steer the further development of the Tikhvin Chalna initiative. Having already gone through various green supply chain assessments and product lifecycle analyses with supply chain partners, Axel Springer was able to propose reasonable initial criteria to its business and supply chain partners which were then developed jointly into concrete policies. Similarly, Migros built upon a structured and monitored supplier development process to ensure the technical feasibility of the new social and environmental supply chain criteria. In order to also increase economic feasibility, Migros assessed its supply chains and thereby understood the opportunities the implementation of a certificate trading system for sustainable palm oil offered. These insights allowed Migros and some of its peers to successfully lobby for the so called “Book@Claim” approach, where organizations can buy certain certificates directly from palm oil producers instead of securing segregation within the entire supply chain. Nestlé's line managers developed structured quality improvement and assurance programs for suppliers to improve the traceability of raw materials. To ensure a technically reliable supply of sustainable raw materials, they attempted to plan more systematically for possible expansions and new suppliers. In addition, they tried to help farmers to achieve the defined performance improvement steps. In this way, Nestlé assisted farmers in creating and capturing additional economic value (Reinhardt, 2005), thereby obtaining public recognition such as the reward from the international NGO Oxfam (Hamprecht, 2006).

SAIN is a business improvement approach that seeks to find and eliminate causes of inefficiencies or defects in business processes by focusing on outputs that are of critical importance to manufacturing and consumers in the upstream supply chain. [\ldots] On the technical side [of SAIN], the focus is on enhancing process performance (improving the average level of performance and reducing variation in raw material quality and unit costs), using process benchmarking methods, and a disciplined and focused process improvement methodology which has four key stages: measure, analyze, improve, and control (Interview with Corporate Head of Agriculture at Nestlé in 2004, taken from Reinhardt, 2005).

The rareness of the process-improvement techniques enhancing supply chain processes in terms of technical, environmental, and social performance can be illustrated with the Axel Springer case. At the time when the Tikhvin Chalna initiative was established, Axel Springer was the only company in the publishing sector sourcing Russian wood that had profound experience in running lifecycle analyses of their wood supply chains. The inimitability is shown in the sophisticated adaptive learning routines of all process improvements described within the cases. Interview partners emphasized that the capability revealed tacit interorganizational routines and
made them explicit (Brown and Duguid, 1991). Ultimately, this lead to richer cognitive models of the supply chain processes as well as activities applied within these processes. Furthermore, it improved the environmental, social, and economic performance of the whole supply chain (Repenning, 1999).

Our case findings support resource-based literature of corporate sustainability arguing that continuous (process) improvement techniques are positively related to the formulation and optimization of proactive sustainability strategies (Christmann, 2000; Hart, 1995). We define process improvement according to resource-based innovation management literature as a capability to identify, analyze, and improve existing business and supply chain processes to meet defined goals and objectives (Benner and Tushman, 2003). As we have seen in the cases, process improvement techniques drive radical as well as incremental innovation, which can lead to substantial performance gains (Benner and Tushman, 2003; Hart, 1995, Christmann, 2000). They comprise techniques to map and assess the existing supply chain processes, provide instruments in order to improve these processes, offer systems that control the adherence to the defined improvement steps (Benner and Tushman, 2003; Neto et al., 2008), and allow organizations to successfully carry out the implementation of environmental supply chain strategies (Boyd et al., 2007; Handfield et al., 2005).

Based on the case findings and the literature, we propose:

**P5.** The capability of process improvement is positively related to the establishment of a voluntary sustainability initiative.

4.7 Cultural framing

All interview partners underlined the importance of their communication efforts with respect to their voluntary sustainability initiative toward important societal actors as well as consumers and further supply chain partners. Specifically, Migros framed its new sustainable palm oil criteria with a broad range of commercials and campaigns, starting with taking part as a best practice example in sustainable palm oil practices in a prominent WWF campaign on the link between deforestation and Swiss business. Migros published its own commercials that explained the link of everyday products to the environmental problem.

We brush our teeth and the Orang-Utan dies. We enjoy an ice cream for dessert and the Sumatra-tiger is deprived of his habitat. We rub cream onto our skin and lead elephants and rhinoceroses to misery […] (Annual Report 2002, Federation of Migros Cooperatives, p. 118).

In following campaigns, Migros built upon these educational commercials and, analytically as well as emotionally, showed its consumers how their new supply chain strategy helps to solve the problem and why alternative approaches may fail. This communication allowed Migros to draw strategic value out of the new strategy, and put other Swiss businesses, including competitors, under pressure to join Migros’ strategy. In the Coop case, interviewees explained the importance of linking end products with the environmental problems in a similar way to gain the acceptance of end consumers and to motivate other consumer good businesses and retailers to also invest in similar supply chain practices. Likewise, Unilever made use of the WWF brand and communication skills to establish the MSC. While the WWF framed the initiative as ethically desirable, Unilever justified its new supply chain strategy in a scientifically analytical way in addition to highlighting economic motivations. The case of the Tikhvin Chalna initiative shows the importance of a comprehensive
communication concept in general. Having started with a well-defined case, Axel Springer planned the development of the voluntary sustainability initiative from a communication point of view and addressed benefits for business partners in general, such as decreased reputational risks, and for potential suppliers specifically, such as the differentiation opportunities toward European customers. This enabled the company to integrate large companies from the publishing sector, wood suppliers capable of implementing the strategy, and NGOs willing to take part in the project.

First you need a good case. A good case is often easier to find if you analyze it not starting in the forest but starting at the press conference, in the communication with media and society it is important what can you communicate, how can you transmit your commitments and this tangible quality of your product to the larger public, the media, NGOs and the larger public (Interview with Corporate Sustainability Officer at Axel Springer in 2007).

Finally, all interview partners mentioned their successes in framing their initiatives in a neutral way without being prominently mentioned as the inventor of the respective initiative. Rather, the joint efforts were highlighted by interview partners as central to the development of the initiative and stakeholder acceptance. While Axel Springer and Migros engaged independent consultants to moderate the process of integrating further stakeholders, Coop coined their initial criteria on sustainable soy supply chains neutrally as the “Basel Criteria”.

The rareness and inimitability of this capability can be illustrated by several of our examples. The initiators of the voluntary sustainability initiatives, all having a reputation for sustainability leadership, were able to frame their strategies in a way in which society could trust their intent (Wicki and Kaaji, 2007). This is rare and path dependent since there is only a limited number of organizations with a long documented and publicly renowned history in sustainability practices. Furthermore, cultural framing is a complex interaction of terms, rewards, structure, and protocols, all being meaningful to different stakeholder groups. Thus, the capability required socially complex experiences in, understanding of, and interaction within diverse stakeholder relationships.

Based on our findings and in accordance with existing work in institutional entrepreneurship literature, we define cultural framing as processes by which organizations strategically question the meaning of specific issues in society in order to show that their strategies are valid, reliable, and useful and by which they integrate their strategies into the specific cultural frames of the legitimating stakeholder groups (Dowell et al., 2002; Howard-Grenville and Hoffman, 2003). With this definition, we reflect previously described resources of institutional entrepreneurs such as cultural capital (Howard-Grenville et al., 2007) and the ability to write acknowledged texts (Munir and Phillips, 2005). Companies establishing voluntary sustainability initiatives interpret the relationships with their stakeholders, segment these stakeholders based on their different cultures and mindsets, and frame their strategies accordingly toward these segments – either alone or in campaigns carried out with allies (Hargrave and van de Ven, 2006). As described in institutional entrepreneurship literature, framing addresses discursive processes at a selected target stakeholder group (Phillips et al., 2004), such as diagnostic, prognostic, and motivational framing. Diagnostic framing refers to the explicit definition of institutional problems such as bad environmental practices which the new approach should solve. Prognostic framing includes the articulation of possible solutions and strategies, and how to realize them.
Motivational framing is the motivating emotional “call to arms” for allied parties in the institutional field (Benford and Snow, 2000).

Based on the arguments above, we assume:

\[ P6. \ \text{The capability of cultural framing is positively related to the establishment of a voluntary sustainability initiative.} \]

5. Discussion and conclusions
Advocates of institutional entrepreneurship argue that resources play a key role in carrying out institutional change. Early studies described resources being used by institutional entrepreneurs. Nonetheless, the structured identification of key resources which contribute to an institutional change still remains weak (Hamprecht and Sharma, 2006). With this article we follow this debate in the context of the implementation of proactive interorganizational sustainable supply chain strategies. Specifically, we empirically analyzed the relationship between (inter-)organizational resources and the establishment of widely accepted voluntary sustainability initiatives.

With this study, we introduce institutional entrepreneurship theory to supply chain management literature. We show that institutional entrepreneurship theory may contribute to the question of how organizations implement their interorganizational sustainable supply chain strategies. Specifically, our study derives propositions for key resources enabling the establishment of voluntary sustainability initiatives widely accepted by participants as well as initiative-external stakeholders. In order to identify key resources, we build our analysis on concepts of the resource-based view. This theory emphasizes key intra- and interorganizational resources (Barney, 1991; Lavie, 2006), which allow the institutional entrepreneur to drive the establishment of a voluntary sustainability initiative more effectively. Additionally, it allows an organization to win the institutional competition against existing and opposing supply chain practices by reducing the risk that other organizations draw on similar resources and oppose changing the institutional environment. Using analytical induction and comparative case studies in the context of proactive interorganizational sustainable supply chain strategies, we identify capabilities that enable the establishment of voluntary sustainability initiatives – namely external stakeholder integration, cross-functional integration, managing loosely coupled business units, supply chain implementation, process improvement, and cultural framing.

We reflect these capabilities with literature that treats aspects of institutional entrepreneurship or resource-based view within the fields of corporate sustainability, interorganizational learning, innovation management, and supply chain management, and discussed whether our capabilities fulfill the characteristics of the resource-based view.

Our propositions support initial findings from institutional entrepreneurship literature. For example, we find that integrating external stakeholders (i.e. building up social capital) as well as cultural capital to frame the interorganizational sustainability supply chain strategy for specific stakeholder segments is positively related to the establishment and legitimacy of a voluntary sustainability initiative. More importantly, we further add several key capabilities to institutional entrepreneurship literature that can be central in the context of establishing voluntary sustainability initiatives, such as cross-functional integration, managing loosely coupled business units, supply chain implementation, and process improvement. These capabilities are in line with current resource-based research on proactive corporate sustainability, innovation management, and green supply chain strategies.
management. However, we leverage these existing findings with our cases in the specific context of voluntary sustainability initiatives and institutional entrepreneurship, identifying key resources contributing to the intended institutional change.

5.1 Directions for future research
While we identify capabilities in several case studies of leading company-driven voluntary sustainability initiatives, further research is needed. Although the cases provide initial indications on relationships between capabilities (e.g. the capability of supply chain implementation was often mentioned in combination with process improvement and cross-functional integration) and temporal orders in the capabilities (e.g. more than half of the cases started with efforts to integrate credible external stakeholders), the gathered data do not allow us to derive propositions on complementarities or contingencies of capabilities (i.e. which combination and sequencing of activities and underlying capabilities is most efficient in establishing voluntary sustainability initiatives). Furthermore, similar to other research on corporate strategies, this study relies heavily on self-reported constructs provided by interview partners. Although we triangulate data by using independent observers and multiple data sources wherever possible, future studies might strengthen our constructs and suggested relationships by testing our propositions quantitatively. Furthermore, studies on key resources for institutional entrepreneurship in the context of proactive interorganizational sustainable supply chain strategies and voluntary sustainability initiatives might take enhancements of the resource-based view into consideration. For example, how do contingencies (e.g. Aragon-Correa and Sharma, 2003) and non-linearity of resource value (e.g. Barnett and Salomon, 2006) or complementary resources (e.g. Christmann, 2000) affect efficiency besides the effectiveness of establishing voluntary sustainability initiatives?

5.2 Implications for practitioners
Companies that wish to set up voluntary sustainability initiatives can draw on our conclusions that identify the key capabilities necessary for the successful establishment of a voluntary sustainability initiative by a lead organization. Therefore, companies should actively integrate strategic stakeholders in the societal as well as economic domain in the development of emerging supply chain strategies to access their specific knowledge and to obtain their support. They should manage these activities in separated business units that allow a critical debate of current practices and emerging strategies not only with partners but also within the company itself. Additionally, they should integrate the affected process owners within the company as well as from external supply chain partners in the development and implementation of the new strategy, and continuously optimize the strategy by drawing on process improvement techniques. This increases both the technical and economic feasibility as well as the acceptance of the new supply chain strategy. Ultimately, this puts companies in a position to move their supply chains toward sustainability, communicate their superiority to society, and to fulfill the promise made accordingly.

Note
1. Scholars of the resource-based view differentiate between “resources” (Barney, 1991), “capabilities” (Amit and Schoemaker, 1993; Teece et al., 1997) and “competencies” (Prahalad and Hamel, 1990) of a business. In doing so, these scholars apply resource-based logic at different levels of analysis. Still, they commonly use the four criteria of Barney (1991).
References


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