TENSIONS IN CORPORATE SUSTAINABILITY:

TOWARDS AN INTEGRATIVE FRAMEWORK

Tobias Hahn

KEDGE Business School

tobias.hahn@kedgebs.com

Jonatan Pinkse

Grenoble Ecole de Management

jonatan.pinkse@grenoble-em.com

Lutz Preuss

Royal Holloway University of London

lutz.preuss@rhul.ac.uk

Frank Figge

KEDGE Business School

figge@sustainablevalue.com

Abstract

This paper proposes a systematic framework for the analysis and management of tensions in corporate sustainability. The framework is based on the emerging integrative view on corporate sustainability, which stresses the need for a simultaneous integration of economic, environmental and social dimensions without, a priori, emphasising one over any other. The integrative view presupposes that firms need to accept tensions in corporate sustainability and pursue different sustainability aspects simultaneously even if they seem to contradict each other. The framework proposed in this paper goes beyond the traditional triad of economic, environmental and social dimensions and argues that tensions in corporate sustainability occur between different levels, in change processes and within a temporal and spatial context. The framework provides vital groundwork for managing tensions in corporate sustainability based on paradox strategies. The paper then applies the framework to identify and characterise four selected tensions and illustrates how key approaches from the literature on strategic contradictions, tensions and paradoxes – i.e. acceptance and resolution strategies – can be used to manage these tensions. Thereby, it refines the emerging literature on the integrative view for the management of tensions in corporate sustainability. The framework also provides managers with a better understanding of tensions in corporate sustainability and enables them to embrace these tensions in their decision-making.

Keywords: corporate sustainability; tensions; integrative view; paradox strategies; sustainable development; triple bottom line

TENSIONS IN CORPORATE SUSTAINABILITY:

TOWARDS AN INTEGRATIVE FRAMEWORK

2

INTRODUCTION

It is widely accepted today that sustainable development entails three interdependent dimensions, an economic, an environmental and a social one (Meadows 1972; WCED 1987). Equally long-standing is the call for an application of this system-level concept to the organisational level (Gladwin et al. 1995; Starik and Rands 1995) through the concept of corporate sustainability (Dyllick and Hockerts 2002). Most scholars in the field seem to agree that corporate sustainability requires firms to address interconnected and interdependent economic, environmental and social concerns at different levels. At the same time, much of the literature on corporate sustainability has used an instrumental logic where, a priori, the economic dimension is prioritised over the two other dimensions. The instrumental logic posits that firms can benefit financially when they address environmental or societal concerns (Dentchev 2004; Husted and de Jesus Salazar 2006), but dismisses situations where tensions exist and environmental and social aspects cannot be aligned with financial outcomes. This lack of consideration of tensions and conflicts contrasts with the complex and multi-faceted nature of corporate sustainability.

These shortcomings of the instrumental logic have more recently led to the emergence of an integrative view on corporate sustainability (Berger et al. 2007; Gao and Bansal 2013; Hahn et al. 2010; Kleine and Hauff 2009; Liu 2012). This integrative view argues that firms need to pursue different sustainability aspects in all three dimensions simultaneously – even if they appear contradictory. Following the integrative view decision-makers need to accept and embrace the tensions inherent in corporate sustainability and acknowledge the need to combine different desirable but seemingly incompatible sustainability aspects without emphasising one aspect over others. An influential early contribution to this strand of the literature is the Triple Bottom Line (Elkington 1997; Kleine and Hauff 2009), which allows

decision-makers to map economic, environmental and social issues side-by-side and measure organisational performance across the range of aspects. However, the Triple Bottom Line only juxtaposes different aspects of the three sustainability dimensions; it does not systematically address the relationship between these aspects. This lack of a systematic understanding of the nature of these relationships represents a fundamental gap for the further conceptual development of the integrative view.

To fill this gap, we draw on the literature on strategic contradictions, tensions and paradoxes (Ford and Ford 1994; Lewis 2000; Poole and Van de Ven 1989; Smith and Lewis 2011; Smith and Tushman 2005) to develop an integrative framework for the identification and characterisation of tensions in corporate sustainability on the basis of which we illustrate strategies to manage such tensions. As a starting point, our framework serves to identify and characterise tensions between social, environmental, and economic dimensions. However, the framework goes beyond this 'traditional triad' by also considering tensions that stem from (a) different understandings of sustainability across individual, firm and systemic levels; (b) different perspectives on change processes needed to become more sustainable; (c) and different views on the relevant temporal and spatial context. We then discuss how different tensions, once identified through our framework, which strategies can be applied to manage these tensions in an integrative way.

By proposing an integrative framework for the analysis of tensions in corporate sustainability, we make several contributions to the literature. First, we refine the emerging literature on the integrative view on corporate sustainability by synthesising and further developing the sporadic work on the various relationships that create tensions in corporate sustainability. Second, the framework allows us to systematically identify and characterise tensions in corporate sustainability. Third, we show how our framework informs the application of key approaches from the literature on strategic contradictions, tensions and

4

paradoxes – namely acceptance and resolution strategies – to the management of tensions in corporate sustainability in an integrative way, i.e. by embracing tensions rather than dismissing them. Our argument should be of assistance to both scholars and practitioners who seek to address these tensions from the perspective of the integrative view.

TENSIONS IN CORPORATE SUSTAINABILITY

The Concept of Corporate Sustainability

Sustainable development represents a normative concept outlining desirable development paths of societies, which has received increasing attention in the management and organisation literature (Bansal 2002, 2005; Dyllick and Hockerts 2002; Gladwin et al. 1995; Jennings and Zandbergen 1995; Shrivastava 1995). Firms play a key role in sustainable development, because they represent the productive resources of the economy (Bansal 2002). At the same time, sustainable development is a society-level concept in the sense that "individual organizations cannot become sustainable: Individual organizations simply contribute to the large system in which sustainability may or may not be achieved" (Jennings and Zandbergen 1995, p. 1023). This key role of business has led to the emergence of the notion of corporate sustainability. While there is no consensus on a definition, corporate sustainability "recognizes that corporate growth and profitability are important, [but] it also requires the corporation to pursue societal goals, specifically those relating to sustainable development – environmental protection, social justice and equity, and economic development" (Wilson 2003, p. 1). Corporate sustainability thus embraces the idea that firms face various demands to achieve societal-level objectives that all appear desirable and acceptable in isolation but are "inextricably connected and internally interdependent" (Bansal 2002, p. 123).

Corporate sustainability confronts decision-makers in firms with complex situations full of

5

tensions. First, as put forward by the Triple Bottom Line, corporate sustainability requires firms to address economic *as well as* environmental and social outcomes *simultaneously* (Elkington 1997), which creates various desirable but mutually dependent objectives. This implies that there is a high risk of unintended consequences, because a solution to one issue could be detrimental to that of another (Newton 2002). Second, sustainability refers to desirable outcomes at the overarching societal level, as "business firms are expected to improve the general welfare of society" (Schwartz and Carroll 2008, p. 168). Additionally, due to a strong focus on intergenerational fairness (WCED 1987), sustainability "emphasizes the long-term nature of the benefit that business is expected to provide to society" (Schwartz and Carroll 2008, p. 163). Third, corporate sustainability involves the simultaneous recognition of varying, but often conflicting demands of a wide set of stakeholders (Clarkson 1995; Maon et al. 2008), who tend to apply different decision logics than managers (Hahn 2012). Sustainability demands often come from 'secondary' stakeholders, such as social activists, non-governmental organisations and local communities (Clarkson 1995; Fineman and Clarke 1996), leading to "conflicting pressures that cannot be reconciled through traditional market transactions" (Hall and Martin 2005, p. 276).

Overall, corporate sustainability refers to a set of systematically interconnected and interdependent economic, environmental and social concerns at different levels that firms are expected to address simultaneously. Even if desirable in isolation, taken together these concerns are "often rife with paradoxes and contradictions" (Berger et al. 2007, p. 143). Surprisingly, the tensions and conflicts that are inherent in corporate sustainability have received relatively little attention in the literature and "[m]uch of the research on organizational responses to social and environmental issues [...] has been framed around an instrumental logic, i.e., how firms can benefit from addressing societal concerns" (Gao and Bansal 2013, p. 241). Only recently, an integrative view on corporate sustainability has been

emerging, which conceptualises corporate sustainability as embracing tensions and contradictions between different sustainability aspects.

The Emerging Integrative View

The integrative view on corporate sustainability argues that firms need to pursue different sustainability aspects simultaneously – even if they seem to contradict each other. As its distinctive feature, the integrative view posits that managers need to embrace the tensions between different conflicting sustainability aspect rather than dismissing them. By doing so, it goes beyond the Triple Bottom Line (Elkington 1997), because it explicitly addresses the oftentimes conflicting relationships between these different aspects. At its heart, the integrative view considers different sustainability aspects as interrelated elements and "recognizes and embraces the contradictions among the financial, social and environmental dimensions" (Gao and Bansal 2013, p. 244). The emergence of the integrative logic can be seen as a reaction to the dominant instrumental logic that addresses environmental and social aspects as any other business issue through the lens of profit maximization, both conceptually (Dentchev 2004; Husted and de Jesus Salazar 2006) and empirically (Barnett and Salomon 2012; Margolis and Walsh 2003; Orlitzky et al. 2003). The dominant instrumental logic establishes a hierarchy of financial outcomes at the organisational level over other sustainability concerns (Hahn and Figge 2011) and thus dismisses the inherent tensions in corporate sustainability (Gao and Bansal 2013).

Research that conceptualises corporate sustainability following an integrative view is relatively sparse. Early calls to address tensions and conflicts in corporate sustainability (Margolis and Walsh 2003) have hardly been acted upon. The few authors that explicitly address some tensions in corporate sustainability (Holt and Watson 2008; Kaptein and Wempe 2001; Margolis and Walsh 2003; Walley and Whitehead 1994) do not provide a

coherent conceptual lens for the analysis and management of these tensions. Rather, the conceptual outline of an integrative view has emerged in the literature only recently.

Berger et al. (2007) describe a 'syncretic stewardship model' where management combines economic and non-economic objectives. In a similar vein, Yuan et al. (2011) underline that to integrate social responsibility into their business, firms need to strike a balance between external stakeholder demands for non-economic outcomes at the societal level and the need to align sustainability initiatives with extant routines and capabilities to achieve firm-level benefits. Hahn et al. (2010) point out that accepting tensions and balancing conflicting sustainability aspects holds considerable potential for corporate contributions to sustainability that remain unnoticed under an instrumental view. Kleine and von Hauff (2009) suggest a management tool that allows decision-makers to map and measure economic, environmental and social issues simultaneously. More conceptually, Figge and Hahn (2008; 2011) argue that the integration of economic, environmental and social dimensions into corporate sustainability as well as into sustainable performance measurements needs to be undertaken without an a priori predominance of any of these dimensions. In the context of cause-related marketing, Liu (2012) identifies an integrative approach where firms seek to combine commercial gains from social and environmental activities with benefits to external stakeholders at the societal level. In a similar vein, Haigh and Hoffman (2012) describe a hybrid business model that blurs the boundary between the for-profit and non-profit worlds. Such organisations pursue goals that are oriented both towards the market and their sustainability mission. Building on a meta-survey, Gao and Bansal (2013) provide empirical support that interdependencies exist between the economic, environmental and social performance of firms. All these approaches have in common that they stress the need for a simultaneous integration of various sustainability aspects without, a priori, emphasising one aspect over any other. At its core, the integrative view thus sees corporate sustainability as

entailing seemingly irreconcilable aspects relating to different social, environmental, and economic dimensions between individual, firm and societal levels and with varying temporal and spatial horizons.

In conceptual terms, the integrative view builds on the literature on strategic contradictions, tensions and paradoxes (Ford and Ford 1994; Poole and Van de Ven 1989). A paradox refers to a situation where oppositional elements co-exist (Clegg et al. 2002; Lewis 2000; Smith and Tushman 2005), because there are two or more elements that are sound and accepted individually, "but taken together they seem to be inconsistent or incompatible" (Poole and Van de Ven 1989, p. 563). The integrative view builds on paradoxical thinking to embrace – rather than eliminate – tensions (Lüscher and Lewis 2008; Smith and Tushman 2005) and argues that achieving corporate sustainability depends on the ability of management to pursue seemingly conflicting sustainability aspects simultaneously.

Strategies to Manage Paradoxes

The integrative view brings up the question which strategies firms can use to embrace tensions and pursue conflicting sustainability aspect simultaneously. The literature on strategic paradoxes offers a set of options for managing paradoxes. A preliminary step and "vital groundwork" (Smith and Lewis 2011, p. 392), however, is that decision-makers acknowledge the existence of paradoxes as doing so serves to identify a situation as paradoxical and to characterise the relationships and tensions between the opposing poles of the paradox (Poole and Van de Ven 1989; Smith and Lewis 2011). This fundamental role of acknowledging contradiction is also apparent in a corporate sustainability context. It separates the integrative view from the instrumental view. While the integrative view acknowledges tensions, the instrumental view focuses exclusively on situations where there is a consistency between financial, environmental and social dimensions; tensions between

different sustainability aspects are dismissed. Only once identified and understood, tensions can then be managed. In their frequently used typology, Poole and Van de Ven (1989) propose that paradoxes can be managed through opposition, spatial or temporal separation or synthesis. Opposition represents a so-called acceptance strategy whereas separation and synthesis constitute resolution strategies (Poole and Van de Ven 1989; Smith and Lewis 2011). Figure 1 illustrates the interplay of acknowledging and managing tensions.

Insert Figure 1 about here

Opposition means that decision-makers distinguish the two poles of a paradox, accept the resulting tensions and seek ways to live with this situation, thus keeping the paradox open. Actors seek to live with the tension, i.e. they "shift their expectations for rationality and linearity to accept paradoxes as persistent and unsolvable puzzles" (Smith and Lewis 2011, p. 385). Contradictory aspects and activities are juxtaposed and pursued simultaneously without either emphasising one pole of the tensions as 'best way' or seeking a synthesis to merge the two poles (Beech et al. 2004; Clegg et al. 2002), in contrast to a compromise, where at least part of each opposite is abandoned. Opposition strategies are characterised by improvisation (Beech et al. 2004; Clegg et al. 2002); that is, in their everyday practice managers improvise in order to attend to both opposing domains of a paradox simultaneously while keeping the two poles apart. Since the two poles of a paradox are related (even if oppositional), opposites and contradictions can inform each other (Poole and Van de Ven 1989), so that living with paradox can result in synergies for the organisation without replacing or attenuating the underlying tensions (Clegg et al. 2002).

With resolution strategies (separation and synthesis), managers seek to resolve a paradox "by spelling out the nature of the tensions between contrary positions" (Poole and Van de

10

Ven 1989, p. 566). However, "resolution does not imply eliminating a tension but, rather, finding a means of meeting competing demands or considering divergent ideas simultaneously" (Smith and Lewis 2011, p. 386). Through resolution strategies the paradox is transformed into a more manageable situation as they offer ways to attend to seemingly contradictory positions simultaneously while the underlying tension remains. For example, separation strategies facilitate the management of paradoxes by separating the two poles either spatially or temporally (Poole and Van de Ven 1989). Spatial separation situates the two poles at different levels (e.g. individual-society) or different social or physical locations while temporal separation locates opposites at different points in time. Both types of separation strategies facilitate the management of paradoxes as keeping the opposing poles apart enables managers to identify and define targets in each of the two opposing domains and to develop skills for addressing each opposing pole while avoiding interference and inertia stemming from the oppositional pole (Smith and Tushman 2005). With a synthesis strategy, managers seek new perspectives or elements that link or accommodate the opposing poles of a paradox. This strategy facilitates the pursuit of competing demands by offering managers an alternative way to make sense of two opposing elements through an overarching or mediating logic. While such a synthesis does not merge the two poles into a new entity, it offers a novel frame that can hold both opposing poles.

In the following we argue that the management of tensions in corporate sustainability through an integrative view requires two stages (see Figure 1). In a first step, managers need to acknowledge tensions and understand the very nature of tensions in corporate sustainability. For this purpose, we develop a framework that facilitates the identification and characterisation of tensions in corporate sustainability. Acknowledging tensions through this framework provides the 'vital groundwork' for managing tensions through acceptance and resolution strategies. Accordingly, in a second step, we use the framework to discuss selected

11

tensions in corporate sustainability and to explore different acceptance and resolution strategies to manage these tensions.

A SYSTEMATIC FRAMEWORK FOR THE ANALYSIS OF TENSIONS IN CORPORATE SUSTAINABILITY

In this section, we develop a systematic framework that allows us to identify and characterise tensions in corporate sustainability which serves as the basis for the management of such tensions from an integrative view. In building our framework, we develop the different dimensions of tensions in corporate sustainability and propose a structure that allows us to identify the sources of different tensions and to characterise their underlying logic.

Dimensions of Tensions in Corporate Sustainability

At the heart of corporate sustainability is the traditional triad of economic, environmental and social dimensions. The attractiveness of corporate sustainability as a concept lies in its ability to bring together many different issues under one heading. However, this ability is also its Achilles' heel. In view of the sheer diversity of the issues concerned, the dominant instrumental logic suggests a coherence between all kinds of economic, social and environmental issues. This assumption stands in contrast with apparent tensions between the three sustainability dimensions that are due to the incommensurability of environmental, social and financial performance criteria (Margolis and Walsh 2003; Orlitzky et al. 2003). While the three sustainability dimensions form the backbone of our framework and cut across all other dimensions of our framework (see Figure 2), we argue that a full understanding of tensions in corporate sustainability requires a more fine-grained analysis that further extends and specifies the economic–environmental–social triad. Tensions can relate to various kinds

of economic, environmental or social concerns as these concerns can reside at different levels, require change processes or operate in conflicting temporal or spatial frames. To capture the sources and characteristics of tensions in corporate sustainability, we distinguish three additional dimensions – (1) *level*, (2) *change,* and (3) *context* – that further specify tensions between economic, environmental and social aspects. Combining these three dimensions with the economic–environmental–social triad results in our analytical framework (see Figure 2).

Insert Figure 2 about here

Level

An important source of tensions stems from the fact that corporate sustainability is a multi-level concept (Whiteman et al. 2013). Corporate sustainability and its underlying economic, environmental and social aspects are not conceptually equivalent across levels of analysis (Kozlowski and Klein 2000; Rousseau 1985) but have different connotations at individual, firm and systemic levels. For example, what would be perceived as a proper response to a sustainability issue at the level of the individual decision-maker might not find support at an organisational level; similarly, an organisational response to a sustainability issue might seem adequate from a firm-level perspective but could nonetheless fail to address the issue from a systemic-level perspective. Hence, tensions arise from the embeddedness of individual and corporate decision-making as both take place in a wider organisational and systemic context, respectively (Donaldson and Dunfee 1994; Granovetter 1985).

Individual-level factors, such as personal values and preferences, determine how decision-makers make sense of corporate sustainability (Bansal 2003; Basu and Palazzo 2008; Cordano and Frieze 2000; Hemingway and Maclagan 2004). Accordingly, the perceptions of

13

sustainability issues will diverge considerably among decision-makers (Banerjee 2001; Henriques and Sadorsky 1999). While some might have the motivation to address a social or environmental issue and see their organisation as a good means to do so, others will not see sustainability as an issue their organisation should address. Hence, there can be tensions between individuals within and across the hierarchical structure of the organisation with regard to adequate organisational responses to sustainability. Individuals promoting environmental issues in decision-making processes (environmental champions) (Andersson and Bateman 2000) may face constraints imposed by organisational culture, structure, policies, or incentive systems, which creates additional tensions between the individual and the organisational level (Bansal 2003).

Tensions between the organisational and the systemic level arise when organisational sustainability initiatives do not measure up to addressing sustainability concerns. From a systemic-level perspective, corporate sustainability goes beyond the individual organisation and focuses on the contribution of the firm to a more sustainable society at large (Whiteman et al. 2013), in the sense of contributing to a viable economy, a sustainable society and healthy eco-systems (Ayres 2008). This implies that firms reckon with the ways in which they affect and are affected by a wide set of interrelated environmental problems, including chemical pollution, climate change, fresh water use, biodiversity loss, land use or nitrogen and phosphorus cycles (Whiteman et al. 2013). This gives rise to tensions between, on the one hand, institutional pressures and societal expectations regarding firm contributions to address social and environmental concerns (Campbell 2007; Hoffman 2001; Jennings and Zandbergen 1995), and, on the other hand, organisational decision-making and actual measures taken to respond to sustainability issues. Hence, there can be a tug-of-war between systemic-level requirements arising from the notion of sustainable development and organisational-level considerations as reflected in corporate decision-making.

Change

Tensions also arise from the change that corporate sustainability calls for, as it requires firms to fundamentally alter their current patterns of activity. There are manifest conflicts with regard to the domain where change is most critical – e.g. which economic, environmental or social aspects are seen as most salient – and how this change should come about. Sustainable development involves a transition from currently unsustainable to more sustainable business practices, consumption modes and economic structures, which – translated into a business context – necessitates changes in corporate strategy and operations. Change thus refers to corporate sustainability as a dynamic process of alternative pathways and transformations that lead to more sustainable business practices. How change will come about, however, is replete with tensions.

A key issue here is whether the change process is one of creative destruction, where existing organisational forms are destroyed and replaced by new forms, or a dialectical process, where (contradictory) elements of the initial organisational forms are transformed but still serve as basis for new forms (Ford and Ford 1994). Accordingly, there are tensions regarding the types of innovation that are most conducive for creative destruction (Hart and Milstein 1999), the effectiveness of different corporate sustainability strategies (Aragón-Correa and Rubio-López 2007), and the different pathways of technological and structural change (Vollebergh and Kemfert 2005). While vested interests will often incentivise firms to only change incrementally, the urgency of certain social and environmental issues would require a far more swift and radical departure instead. This tension stemming from the change dimension is illustrated, for example, by the disagreement between different organisations on how to proceed with the transition to renewable energy (Pinkse and Groot 2013).

Context

A final source of tensions stems from the temporal and spatial elements of the context in which the transition towards sustainability takes place (Ford and Ford 1994; Poole and Van de Ven 1989). The temporal element is essential in sustainable development because it emphasises the intergenerational equity aspects of social and environmental issues (Held 2001; Portney and Weyant 1999). However, this focus on the consideration of the long-term implications of current behaviour creates a tension with the short term focus that dominates corporate decision-making (Slawinski and Bansal 2012; Wade-Benzoni 2002). Temporal tensions refer to the question whether firm strategies undervalue long-term outcomes regarding specific economic, environmental and social aspects (e.g. short-term environmental performance versus long-term environmental performance) as well as across different aspects (e.g. short-term financial performance versus long-term social performance).

The spatial element captures tensions that refer to another key element of sustainable development, namely intragenerational equity (Okereke 2006). Intragenerational equity has a strong spatial notion, because it concerns equitable development opportunities between developed and underdeveloped regions as well as within both of these (Zuindeau 2007). For instance, the spatial element leads to tensions when firms operate sites in developed and developing countries with different environmental or social standards (Christmann 2004). Spatial tensions touch upon environmental justice, for instance in relation to the localisation of polluting facilities in low-income, minority or other disadvantaged neighbourhoods (Pellow et al. 2001). For instance, multinational firms face the question whether to abide by home country standards, host country standards or by a universal standard (Donaldson and Dunfee 1994).

STRATEGIES TO MANAGE TENSIONS IN CORPORATE SUSTAINABILITY

In the following, we apply our framework and illustrate how the identification and characterisation of tensions in corporate sustainability translate into strategies to manage selected tensions. While our framework opens up a wide field of investigation, we focus here on tensions between personal and organisational sustainability agendas; corporate short-term and long-term orientation; isomorphism and technological and structural change; and efficiency and resilience. While the first three tensions have received considerable attention in the corporate sustainability literature, the latter represents a dominant topic in the debate on sustainable development. At the same time, these tensions reflect the different dimensions as defined in our analytical framework above. Based on the identification and characterisation of these tensions along the dimensions of our framework, we now turn to exploring strategies to manage these tensions and illustrating these strategies through real-world examples. Table 1 summarises the four selected tensions, their main characteristics and related strategies.

Insert Table 1 about here

Personal versus Organisational Sustainability Agendas

Identification and Characterisation

The importance of the level dimension of our framework can be illustrated through tensions between personal and organisational sustainability agendas. As discussed above, personal preferences for corporate sustainability are not necessarily aligned with the organisational sustainability agenda (Bansal 2003). An organisational member may have a strong belief that social and environmental issues need to be addressed as part of the organisation's strategy; yet key features of organisational design, such as formal reporting

relations or managerial compensation schemes, may prevent the person from putting this belief into practice (Berrone and Gomez-Mejia 2009; Preuss and Walker 2011). Tensions between personal and organisational sustainability agendas thus appear when individual motives, perceptions, values and actions for sustainability are in conflict with the organisational culture, structure and strategy in this domain (Aguilera et al. 2007). In terms of our framework, these tensions refer to differences between individual and organisation-level preferences for addressing specific economic, environmental and social aspects.

It has been argued that personal values and preferences drive managers to implement corporate sustainability-related activities (Hemingway and Maclagan 2004). Based on the person-organisation fit (Kristof 1996), Cable and DeRue (2002) argue that a strong alignment between personal and organisational values is related to higher levels of citizenship behaviour in organisations. However, as Bansal (2003) argues, some sustainability issues that are highly valued by individual organisational members might not be part of the organisational agenda as the "organizational agenda, unlike the individual agenda, requires the commitment of resources beyond the individual's discretion" (2003, p. 517).

Conceptually, the tension between personal and organisational sustainability agendas is characterised by two distinct, yet interrelated poles: individual agency and organisational structure (Barley and Tolbert 1997). Organisations establish rules, norms and administrative procedures to coordinate and control individual action to implement organisational sustainability agendas, but these organisational structures constrain individual agency. Acting against the explicit rules and norms of the organisation requires a degree of courage. A manager may feel justified in making a particular decision driven by a personal commitment to sustainability, yet the organisation merely records a suboptimal performance against stated criteria, if not outright non-compliance. A manager who nonetheless pursues sustainability objectives that deviate from the organisational agenda thus risks facing disapproval by the

18

organisation. This tension becomes more apparent once personal sustainability agendas are brought into greater proximity with organisational agendas, which is particularly the case when a person moves to a more prominent position in the organisation. For instance in 1999, William Ford Jr., the grandson of Henry Ford, published some very critical statements on the strategy and practices of Ford Motor Co. with regard to environmental sustainability when he was nonexecutive chairman but had to moderate his strong environmental concerns once he had become the CEO of the company in 2001 (Pearce II and Doh 2005). This example illustrates how the organisational agenda of Ford translated into a constraint for an individual manager to pursue and live up to its personal sustainability agenda and underlines the need to actively manage such tensions.

Strategies

Once acknowledged, the tension between personal and organisational sustainability agendas can be addressed through acceptance or resolution strategies. An acceptance strategy requires that managers find ways to simultaneously consider contradictory aspects without emphasising one pole of the tension as the best way (Beech et al. 2004; Clegg et al. 2002). With regard to tensions between personal and organisational sustainability agendas, acceptance strategies embrace divergent personal and organisational agendas and allow for diverse views on corporate sustainability within the organisation. With such strategies, firms juxtapose contradictory preferences for pursuing different environmental or social concerns that stem from different personal and organisational agendas without seeking synthesis or alignment. Especially with regard to change for corporate sustainability, conflicting views, motives and preferences regarding sustainability practices are not only inevitable but also desirable as drivers of cognitive organisational reorientation (Fiss and Zajac 2006),

organisational creativity (Woodman et al. 1993) and organisational learning (Huzzard and Östergren 2002).

With acceptance strategies, firms transform the tension between personal and organisational sustainability agendas into a "creative tension" (Bassett-Jones 2005). In this way, firms can establish an organisational climate of participation (Tesluk et al. 1999) and creativity (Ekvall 1996) that fosters constructive debate. Rather than fostering conflict over divergent agendas (Isaksen and Ekvall 2010), such a climate is based on fluid information exchange within and beyond the organisation (Woodman et al. 1993) and regular and open dialogue across management levels and functions (Huzzard and Östergren 2002; Jarzabkowski and Fenton 2006). However, acceptance strategies cannot be fully planned. Rather, management could shape emergent sustainability agendas through interaction with organisational members (Jarzabkowski 2008), i.e. "through promoting everyday improvisation, and through creating conditions and incentives that foster diverse networks" (Fenwick 2007, pp. 642-643). This corresponds to a setting where sustainability strategies emerge as behavioural patterns of practice within the organisation (Markusson 2010; Sharp and Zaidman 2010). Tensions between oppositional agendas are "considered as inevitable, legitimate, and potentially healthy" (Bouchikhi 1998, p. 230) and the challenge for management is to create an organisational context where the confrontation of diverging agendas nurture a productive process of progress (Sundaramurthy and Lewis 2003).

An example of an acceptance strategy can be found in firms that have created space for so-called green teams, i.e. self-organised, grass-root and cross-functional teams of organisational members with little bureaucratic or formal constraints where members voluntarily initiate sustainability projects in their organisations (Fleischer 2009). These teams are not part of the formal organisational structure and also develop projects that go beyond the official organisational sustainability agenda. For instance, alongside initiatives to curb carbon

emissions of office facilities, Intel's green team developed a community-supported agriculture programme through which employees can sign up to purchase locally grown food. Similarly, while eBay's green team has driven the construction of a 700-kilowatt solar installation at eBay's headquarters, it has also been engaged in planting community gardens (Fleischer 2009; Glen et al. 2009). By accepting and providing leeway for the co-existence of divergent personal and organisational sustainability agendas, Intel and eBay manage the tension without removing it. Paradoxically, by allowing employees to deviate from the organisational agenda the firm can increase employee loyalty and satisfaction.

With resolution strategies firms look for ways to transform tensions into a more manageable situation without necessarily eliminating the underlying tension. A separation strategy aids the management of tensions by separating the two poles either spatially or temporally (Poole and Van de Ven 1989). A temporal and spatial separation of individual and organisational sustainability agendas can be achieved through the creation of permanent or temporal pockets within or outside the organisation where organisational members can pursue their personal sustainability agendas. Such separation strategies avoid direct collision of personal and organisational agendas without necessarily reconciling the two. In this way, firms can reap the benefits of pursuing both poles of the tension while avoiding interferences that can arise when they are brought into greater proximity (Smith and Tushman 2005).

One frequently used separation strategy are employee volunteering programmes (Muthuri et al. 2009; Peloza and Hassay 2006). With such programmes, firms formally sponsor employees' community involvement by approving time off and providing additional resources (Grant 2012). This allows organisational members to address environmental or social challenges according to their personal sustainability agendas without changing the sustainability agenda of the organisation. Employee volunteering programmes are widespread (Allen et al. 2011) with millions of hours donated each year by employees on behalf of their

employers (Peloza and Hassay 2006). Corporate sabbatical programmes offer particularly long volunteering periods to pursue personal sustainability agendas. For instance, Xerox's Social Service Leave Program offers employees fully-paid leaves of absence of up to one year to work full-time on social action projects of their own design and choosing. Since its inception in 1971 as the first programme of its kind in the US, more than 500 Xerox employees have benefited from this programme (Xerox Corporation 2013). Through such temporal separation strategies employees can acquire new skills and reap personal satisfaction from pursuing their own sustainability agendas (Muthuri et al. 2009), while Xerox may gain new insights into sustainability challenges and benefit from higher employee morale and organisational commitment (Pajo and Lee 2011).

With synthesis strategies, firms seek to accommodate the opposing poles of the tension in an overarching or mediating logic. To manage tensions between personal and organisational sustainability agendas through synthesis, firms can institute formal procedures and systems that enable organisational members to participate in enacting the organisational agenda. Corporate initiatives for employee empowerment and participation (Daily and Huang 2001) can play a role as a way to delegate decision authority and foster participative decision-making (Seibert et al. 2004). Environmental suggestion programmes, for example, create empowerment (Rothenberg 2003), as they "allow [organisational members] the freedom and power to make suggestions and implement good environmental practices" (Daily and Huang 2001, p. 1546). Empowering structures and policies also enable environmental championing (Andersson and Bateman 2000; Markusson 2010), i.e. they help individuals to promote environmental issues in decision-making processes by fostering their participation and involvement to shape organisational practices. For instance, British Airways (BA) implemented an environmental suggestions scheme called Greenwaves as early as 1992 (Vyakarnam 1992). BA management re-launched the scheme in 2011-2012 in view of

increasing economic and environmental pressures in order to develop the organisational sustainability agenda with ideas from individual employees. By January 2012, more than 200 quality suggestions were filed leading to cost savings of £20mn and fuel savings equivalent to 550 flights between London and New York (Vetter IMS Corp. 2012). BA management mediated the tensions between personal and organisational sustainability agendas, as this scheme allowed BA to tap into employees' knowledge while offering employees a means to shape the firm's sustainability activities. With such synthesis strategies the focus shifts away from opposing agendas towards the on-going practice of organising and performing corporate sustainability activities (Hargreaves 2011). While this does not mean that all personal agendas will be fully reflected in the organisational agenda, it will integrate personal agendas into the strategy-making process.

Corporate Short-Term versus Long-Term Orientation

Identification and Characterisation

The context dimension of our framework emphasises the influence of different time orientations on achieving sustainable development. The main temporal tension results from the fact that sustainable development requires a much longer time orientation than the typical time horizon of firms, which has been criticised for its short-term focus (Held 2001). As a consequence, firms that integrate sustainability in their business face intertemporal choice problems, i.e. situations in which "the course of action that is best in the short term is not the same course of action that is best over the long run" (Laverty 1996, p. 828). Climate change is a typical example of an intertemporal choice problem. To prevent the long-term impacts of an increase in severe weather extremes, it would be better to start downsizing activities that generate large amounts of greenhouse gas (GHG) emissions. Yet, as long as these activities are still highly profitable, firms are not motivated to do so. Referring to our framework, this

tension not only relates to the temporal element of our context dimension, but also to the difference in time orientation between the economic dimension on the one hand and environmental and social dimensions on the other hand. While the economic dimension emphasises short-term financial objectives, environmental protection and social equity address more attention to long-term concerns.

A short-term orientation in corporate sustainability has its origin in the endeavour of firms to turn sustainability into a concrete business issue. What stands in the way of acting on sustainability imperatives, however, is the difference that managers experience between the information that is available to make decisions and the information they need (Marginson and McAulay 2008). The more managers focus on sustainability aspects that are relevant in the short term, the more information is available and the lower the uncertainty is about its reliability. Slawinski and Bansal (2012) found, for example, that one way for firms to deal with climate change is to translate it into financial metrics using the cost of carbon and to focus on specific technologies that could be implemented fast and efficiently. In this way, these firms enable a speedy response regarding climate change, but reducing an issue to a financial metric also narrows down the range of potential solutions and shortens the planning horizon.

This short-term orientation contrasts with the need for firms to find ways to engage with the long-term nature of many social and environmental issues. Intergenerational equity calls for the consideration of the interests of future generations and it is usually assumed that the time horizon of current decision-making undervalues the interests of future generations (Padilla 2002). A long-term orientation is necessary to take into account the interests of stakeholders and consequences of decisions that occur after the immediate time horizon ordinarily considered in corporate decision-making (Broome 1994). In the context of climate change, Slawinski and Bansal (2012) found that firms with a long-term orientation consider a

much broader set of approaches to reduce GHG emissions and include many different stakeholders in their decision-making, such as NGOs, governments and other firms. To justify investments for emission reduction, they go beyond financial metrics, using various qualitative tools, such as scenarios, and they have a longer planning horizon. However, a long-term orientation and the involvement of different stakeholders also has the side-effect that solutions take much longer to materialise, leading to a much slower response. This might be at odds with the urgency of the issue and the need for a swift response to cope with the time lag effects that are inherent in climate change (Levin et al. 2012; Slawinski and Bansal 2012).

Strategies

Pursuing an acceptance strategy to deal with temporal tensions implies that managers acknowledge that business practices that are beneficial in terms of short-term financial outcomes should be complemented by practices that avoid detrimental economic, environmental or social impacts in the long run. Given that business is currently fraught with short-termism (Laverty 1996; Marginson and McAulay 2008), firms can try to combine short- and long-term outcomes through the implementation of organisational practices that induce managers to take more notice of long-term considerations.

As an example of such practices, a number of firms have recently adjusted their financial bonus systems to attend to both short- and long-term concerns (Berrone and Gomez-Mejia 2009; Kolk and Perego 2013; Mackenzie 2007). For example, two Dutch multinationals – health, nutrition and materials firm DSM and express delivery firm TNT – implemented a bonus system that equally divided the bonus based on short-term and long-term targets with a strong focus on non-financial targets (Kolk and Perego 2013). Both firms included metrics related to long-term social and environmental dimensions in their bonus systems; while DSM

focused on employees, products based on eco-innovation, and the environment more generally, TNT used metrics related to customers, employees and the environment. Such compensation packages keep the importance of short-term earnings intact, but add complexity by also requiring managers to achieve non-financial objectives in line with demands from stakeholders other than investors (Kolk and Perego 2013). The fact that these bonus systems do not translate long-term objectives into financial targets means that they keep the two poles of the paradox intact, forcing managers to attend to short- and long-term objectives simultaneously despite their inherent contradictions.

With resolution strategies, firms can handle intertemporal choice problems of sustainability either by spatially separating which part of the organisation should take care of short- and long-term issues or by creating a synthesis through the implementation of corporate governance structures that enable managers to pursue both types of issues simultaneously. A spatial separation strategy is based on the notion that there is a difference between different time perceptions across organisational levels (Mosakowski and Earley 2000). Short-termism manifests itself in organisational structures and hierarchies where "certain long-term considerations will not 'bubble to the top'" (Laverty 1996, p. 847). Since managers at lower levels will have more operational responsibilities, they lack strategic vision and cannot be expected to deal with long-term concerns in isolation. Spatial separation would thus imply that the achievement of long-term objectives is a primary function of top management. Once top management is explicitly made responsible for dealing with long-term sustainability concerns, this will create more room for lower-level managers to be more forward-looking. So, while long-term considerations will not bubble to the top, in vertical hierarchies such considerations could trickle down. For example, Swiss power and automation technologies firm ABB decided already back in 1992 to implement its sustainability management programme in a top-down manner. This was based on ABB's

standpoint that sustainability should be "set from the top and driven down through the organization by example, leadership, and top management support" (Mirvis and Googins 2006, p. 114).

To pursue a synthesis strategy, firms could implement an alternative corporate governance structure that is more forgiving of not meeting short-term financial objectives. Such a structure would create an enabling environment to pursue short- and long-term objectives simultaneously, because it secures both types of objectives in the mission and principles of the organisation (de Graaf and Herkströter 2007). Many different corporate governance structures have been suggested that enable firms to marry short- and long-term objectives, including hybrid organisations (Battilana and Dorado 2010; Haigh and Hoffman 2012) or social enterprises (Dart 2004). Both hybrid organisations and social enterprises deliberately blur the lines between for-profit and non-profit organisations (Dart 2004; Haigh and Hoffman 2012) and have a strong identity that balances different financial and non-financial objectives (Battilana and Dorado 2010). They have a mission to contribute to sustainability (Haigh and Hoffman 2012), strongly anchored in their corporate governance structure. As a consequence, hybrid organisations are able to maintain a longer time horizon, particularly when they finance their activities with 'patient' capital providers that grant more autonomy to make decisions that are better for the long term (Haigh and Hoffman 2012).

Isomorphism versus Structural and Technological Change

Identification and Characterisation

The change dimension of our framework reflects the fact that achieving sustainable development requires firms, industries and entire economies to alter the ways they operate. In this context, the role of technological (Vollebergh and Kemfert 2005; York and Rosa 2003) and structural change has been stressed (López et al. 2007). In these processes firms are

expected to act as drivers of change for sustainable development at the systemic level. At the same time, institutional theory suggests that firms face institutional pressures to comply with norms for legitimate behaviour, leading to isomorphism. Institutional isomorphism tends to stabilise existing structures and technologies (Campbell 2007; Hoffman 2001). As a consequence, there is a tension between the need for firms to comply with institutional pressures and established practices and the call for firms to act as innovators for more sustainable business practices (Midttun 2007). Accordingly, in our framework this is a tension between environmental and social aspects of change processes that operates between the organisational and systemic levels.

An example of the tension between isomorphic pressures and the need for change based on breakthrough technologies is the struggle of the automotive industry to supply low-emission vehicles. Over the past two decades, the automotive industry has seen bouts of interest in various types of low-emission vehicles, including electric vehicles and hybrids (Bakker et al. 2012). Electric vehicles face considerable acceptance problems due to their limited driving range, which means that customers need to break free from the idea of a car as a multi-purpose vehicle and choose a specific-purpose vehicle instead (Orsato and Wells 2007). Hybrids do not face the same legitimacy problems but their potential to contribute to lower GHG emissions is also much lower. Thus, strongly institutionalized expectations of cars as privately owned multi-purpose vehicles, powered by fossil-fuel engines with high range autonomy hinder the acceptance of innovative low-emission vehicles and alternative business models based on shared ownership of specific-purpose vehicles. This example illustrates that the tension between technological change and legitimacy stems from two opposing forces. On the one hand, in order to secure legitimacy, firms need to obey institutionalised and taken-for-granted behavioural patterns that are rather inert and difficult to influence by a single firm (DiMaggio and Powell 1983; Scott 2001). On the other hand, in order to contribute to change

towards sustainable development, firms will need to undergo (radical) technological and structural change which may require well institutionalised existing practices to be abandoned.

Hence, firms face a simultaneous challenge to change fundamentally for the sake of sustainable development and to comply with dominant institutionalised expectations to secure legitimacy. Due to this "tension between [...] existing business models and the radical innovations necessary to achieve systemic innovation towards long term sustainable development" (Midttun 2007, p. 409), corporate change initiatives collide with isomorphic pressures (Barley and Tolbert 1997; Seo and Creed 2002). The adoption and diffusion of more sustainable technologies and business practices may be impeded by institutionalised norms that stabilise prevailing business practices and reinforce path dependencies. This tension reflects the situation in the automotive industry where innovations, like the electric vehicle, have not gained widespread approval so far, because they challenge fundamental design features and consumption patterns of automobiles that are deeply engraved in consumers and car-makers (Bakker et al. 2012). Firms that seek to promote radical technical solutions or new business practices need to overcome this inertia and break with institutionalised technologies and structures. However, doing so exposes them to the risk of losing legitimacy in the market as such technologies become detached from existing understandings about cars that are culturally and cognitively taken for granted (Hargadon and Douglas 2001; Sanders and Tuschke 2007).

Strategies

Acceptance strategies to address tensions between isomorphism and change are based on acknowledging that novel practices will suffer from institutional disapproval and the innovator has to live, at least for a certain time, with the tension between innovation and the risk of a loss of legitimacy. Thus, with acceptance strategies firms will continue to offer

products and services based on well-established practices to maintain legitimacy while at the same time experimenting with and launching alternative offerings based on novel technologies or business models. Oftentimes, such structural and technological innovations are not based on a dominant design yet (Aldrich and Fiol 1994) and it is unclear which technology or business model will eventually gain institutional approval. Acceptance strategies thus tend to involve improvisation and trial-and-error loops with different technologies and business models. The electric vehicle strategy of the Renault Nissan Alliance can serve as an example (Schifrin and Burgelman 2011). The business of Renault and Nissan is dominated by conventional models, yet the Alliance also made a $5.2bn investment to offer electric vehicles under both brands. In doing so, the car-maker purposefully experiments with different design and business model options simultaneously. The Nissan LEAF is designed as a multi-purpose family sedan that is sold including the battery pack and aligns well with the strongly institutionalised model of private ownership of a multi-purpose vehicle. The Renault models (Fluence Z.E. and Zoe) are sold without battery packs that have to be leased instead but can be changed rapidly against charged ones at service stations. This business model responds to customer reservations around long charging cycles and range anxiety and brings down the acquisition price of the car, as the batteries constitute the most expensive component of electric vehicles. The acceptance strategy of Renault Nissan is characterised by "a 'shifting stock' of experimental practices" (Beech et al. 2004, p. 1316), where different competing technological designs and business models for electric vehicles co-exist with conventionally designed cars. The company deliberately accepts to live with the tensions this strategy entails and does not settle on one of the options as it is still unclear which one is going to be the dominant design and business model for electric vehicles. At the same time, the Renault Nissan Alliance is firmly committed to further develop and market electric vehicles in parallel to their conventional internal

combustion engine models (Schifrin and Burgelman 2011).

With a spatial separation strategy, firms can concentrate their established business in markets where traditional institutionalised expectations still prevail, while they also develop innovative solutions for market segments where institutional change has already taken place. Firms can thus exploit different institutional expectations in different markets to escape this tension (Oliver 1991) and pursue well-institutionalised and innovative practices at the same time. The car-sharing subsidiary car2go of car-maker Daimler is a case in point. While Daimler still markets conventional cars in the premium segment, it has been a pioneer in car-sharing services in urban areas. This service breaks with conventional notions of private ownership of multi-purpose vehicles by offering on-demand use of two-seat vehicles of its brand Smart (both with an internal combustion engine and as an electric vehicle). Car2go concentrates its services on selected cities as the possession of cars tends be less important as status symbol for young urban populations (Dijk et al. 2013). Such separation strategies allow car-makers to pursue alternative technologies and business models despite the tensions this creates for their legitimacy.

When pursuing synthesis strategies, firms seek solutions that address both legitimacy concerns and the pursuit of new technologies and business models. One strategic option for firms is to actively engage in institutional change (Lawrence and Suddaby 2006) to shape institutional expectations in order to lift the institutional lock-in that impedes technological and structural change for more sustainable business practices. The success story of Toyota's hybrid model Prius can serve as an illustration. In the early years after the launch of the Prius in 1997 Toyota's approach was marked by an acceptance strategy to promote hybrid technology in spite of legitimacy problems, yet Toyota has succeeded in the meantime in achieving institutional approval for its hybrid technology as the car is more and more becoming a status symbol (Heffner et al. 2007; Ozaki and Sevastyanova 2011), a trend

initially driven by celebrities and strong media coverage. According to market research more than half of Prius buyers in the US indicated that their purchase motivation was to make a statement about themselves rather than fuel efficiency (Maynard et al. 2007). Toyota actively worked towards institutional approval for its hybrid technology to mediate the tension and prepare the ground for its use in a wider range of models beyond the Prius.

Efficiency versus Resilience of Socioeconomic Systems

Identification and Characterisation

Another tension between organisational and systemic levels, but one with a strong spatial element, operates between efficiency and resilience. It is argued that, in a market economy, success and survival of the economic system depend on efficiency (Smith 1776). However, analyses of the sustainability of economic systems from the perspective of thermodynamics and (eco)system theory (Goerner et al. 2009) suggest that efficiency considerations need to be complemented by the notion of resilience. Resilience is the magnitude of disturbance that a system can tolerate before it can no longer recover to its previous state (Carpenter et al. 2001). High resilience is linked to high diversity. Efficiency can often be increased through concentration, homogenisation, standardisation and centralisation, leading to economies of scale; yet these practices tend to lead to lower diversity (Holling 1973; Schütz 1999). As each firm aims to increase its efficiency at the organisational level, both intra- and inter-firm diversity and resilience on the systemic level are reduced.

This tension between efficiency and resilience can be explained using the example of agricultural diversity (Figge 2004). The decision which crop to grow is made by farmers individually to achieve high agricultural yields. Operating under similar constraints they will tend to grow similar crops. At the overarching level this can result in a homogeneous portfolio of crops that lacks resilience. An interesting case here is the Irish potato famine

(1845-1852). Under heavy economic pressures many Irish farmers reverted to the same high-yield crop – potatoes – which led to a homogeneous portfolio, lacking diversity and resilience. This lack became evident when a new threat arrived in the form of a disease (Phytophthora infestans), due to which large parts of the crop failed, resulting in the loss of human life and mass migration (Fraser et al. 2005).

The tension between efficiency and resilience stems from a mismatch between the organisational and the systemic level. The desired outcome at the systemic level, resilient agricultural systems, is in conflict with the desired outcome at the organisational level, high agricultural yields of the individual farm. Resilience of the agricultural system can only be achieved if at least some farms adopt divergent practices, i.e. planting other crops that are less efficient. The tension between efficiency and resilience thus resides between organisational and systemic levels, since resilience at the systemic level depends on the combination of activities at the level of single organisations.

The tension between efficiency and resilience intensifies under conditions of uncertainty. In a highly predictable environment there is little need to prepare for unexpected changes, but under conditions of high uncertainty about potential external shocks resilience becomes more important (Kates and Clark 1996). Uncertainties in the agricultural context manifest themselves, for example, in the variety of possible weather conditions, different pests and diseases. Different crops vary in tolerance regarding these conditions, but also have different expected yields. With higher uncertainty it is more important to have different crops to arrive at a resilient portfolio. However, this requires that at least some farms plant crops with a lower yield and accept lower efficiency for their firms for the sake of an outcome with a higher resilience at the systemic level.

Strategies

The tension between efficiency and resilience can be addressed through acceptance and resolution strategies. An acceptance strategy in the context of agricultural diversity requires decision-makers to simultaneously pursue activities that enhance efficiency and activities that increase diversity, even when these are conflicting. In situations where the tension between two poles of a paradox cannot be eliminated, Beech et al. (2004) highlight that acceptance strategies may entail discussions between different actors to foster a better understanding of the tensions and arrive at creative solutions. An example of an acceptance strategy is the cooperation between farmers and stakeholders, such as NGOs or scientists (e.g. Cardoso et al. 2001). While farmers have an interest in efficiency gains and high yields, NGOs seek to pressure farms to adopt practices that increase diversity and resilience of the agricultural system. When both sides cooperate, they acknowledge the relevance of the other party's interests, even if these do not match, at least not in the short term (Bentley 1994; Penker 2008). The cooperation of farmers, NGOs and researchers in the Zona de Mata in Brazil (Cardoso et al. 2001) is an example where an agroforestry project pursued goals to increase both productivity and biodiversity despite their conflicting nature. Interestingly, although it did not meet farmer expectations in terms of efficiency increases, the project continued. This has been credited to an increased understanding and acceptance of the conflicting goals of efficiency and resilience through information exchange. The project was even able to recruit further participants when it was already known that the goals for productivity increases were not met (Cardoso et al. 2001).

Tensions between resilience and efficiency can also be addressed with strategies that separate decisions relating to efficiency from decisions relating to diversity. Within the European Union (EU) the responsibility for maintaining agricultural diversity at the systemic level is largely separated from decisions targeting efficiency at the farm level. In Europe, "governments and the EU spend roughly € 3.5 billion a year on schemes aimed at

encouraging less-intensive farming in order to see gains in biodiversity, landscape preservation, and water and soil quality" (Whitfield 2006, p. 908). This includes schemes that set aside land for nature conservation and farmland biodiversity (European Commission 1998; Van Buskirk and Willi 2004). Rather than integrating efficiency and diversity concerns with regard to the same agricultural area, such schemes separate part of the agricultural area to increase diversity. In this way efficiency and diversity concerns are spatially separated, with some parts being managed for high efficiency and others for high diversity.

Synthesis strategies to address tensions between efficiency and resilience rely on creating institutions that link the benefits of higher efficiency with the benefits of higher diversity. Institutions constitute widely accepted norms and rules that regulate and potentially coordinate single organisations' decisions in such a way that tensions between the efficiency of the individual firm and the resilience at the systemic level are reduced. Such institutions play an important role for increasing the resilience of agricultural systems (Fraser 2007). An example in this context are traditional cultural institutions at the community level that regulate and coordinate land use in a community, like the so-called *aynuqa* system in the Peruvian Andes. The *ayunqa* system establishes community-level cultural and religious rules that oblige private land owners to follow an established crop rotation scheme (Orlove and Godoy 1986; Swinton and Quiroz 2003). Each community has several *aynuqas*, distributed across the landscape and their rotation cycles are coordinated sequentially to minimise the risk of crop losses (Bluffstone et al. 2002; Orlove and Godoy 1986). This cultural institution allows individual farmers to cultivate their own land efficiently while ensuring diversity and resilience at the community level by prescribing and coordinating which crop is planted on different pieces of land. It establishes "social customs [that] provide reasons for diversity maintenance" (Swift et al. 2004, p. 113) as it helps to avoid farmers' attempts to boost short-term production at the expense of soil fertility and resilience.

DISCUSSION AND CONCLUSIONS

Main Implications

The discussion of the four selected tensions above has shown that a systematic analysis of tensions in corporate sustainability based on an integrative view offers promising avenues for future research on a wide range of corporate sustainability aspects. Our framework contributes to the development of the emerging integrative view on corporate sustainability by proposing dimensions of tensions in corporate sustainability that further specify as well as go beyond the traditional economic–environmental–social triad. By doing so, it offers a better understanding of the nature of the relationships between different aspects of corporate sustainability. The framework thereby provides the basis for the development of strategies to manage such tensions based on the integrative view. It offers insights for corporate decision-makers who seek to "undertake the task of working out the principles and guidelines" (Margolis and Walsh 2003, p. 284) for addressing tensions in corporate sustainability.

Once firms embrace the multiple tensions in corporate sustainability, corporate contributions to sustainability that remain unnoticed under the dominant instrumental perspective come to the fore. Firms that simultaneously address multiple sustainability aspects – even if these appear to contradict each other – can shake off the straightjacket of the instrumental perspective that establishes a hierarchy of financial outcomes at the organisational level over other sustainability concerns. Our framework contributes in three different ways to the conceptualisation of corporate responses to sustainability that are based on the simultaneous pursuit of seemingly contradictory economic, environmental and social aspects. Firstly, it clarifies the nature of the various tensions by relating them to different levels between which they occur, to the change processes that are involved and to the spatial and temporal context in which they take place. Secondly, through this systematic lens the

sources and the underlying logic of these tensions can be identified. Thirdly, it provides insights into different kinds of acceptance and resolution strategies that firms can use to manage these tensions without dismissing them. Overall, we contend that accepting tensions based on an integrative logic should result in substantive corporate contributions to sustainability.

Since it is probably safe to assume that managers are confronted more often than not with tensions and conflicts in corporate sustainability (Devinney 2009), our framework helps them to deal with the resulting complexity. Our argument illustrates how acknowledging and understanding such tensions enables their management. Most importantly, managing tensions based on an integrative view does not mean that conflicting situations should be dismissed, as the instrumental view suggests. Rather, the integrative view is based on the ability to live with and transcend the tensions based on paradoxical thinking (Lüscher and Lewis 2008; Smith and Tushman 2005).

While we have presented the strategies to manage tensions as distinctive, the different strategic options are interrelated and can often be combined. Smith and Lewis (2011, p. 392) argue that "paradoxical resolution denotes purposeful iterations between alternatives in order to ensure simultaneous attention to them over time". Therefore, an integrative view that accepts tensions between different sustainability aspects and dimensions may require iterations between separation and synthesis strategies as well as between acceptance and resolution strategies (Smith and Lewis 2011; Smith and Tushman 2005). However, before decision-makers can pursue any of the strategies to manage tensions, they first need to acknowledge that tensions exist. Our framework offers the vital groundwork for developing strategies to manage tensions in an integrative view as it serves to identify and characterise the opposing forces that are at the heart of tensions in corporate sustainability.

From a conceptual point of view, our framework adds novel elements to the meaning of

proactiveness of corporate sustainability strategies. Proactive sustainability strategies "have been delimited as systematic patterns of voluntary practices that go beyond regulatory requirements" (Aragón-Correa and Rubio-López 2007, p. 358). In view of the integrative logic, it might well be the case that some of the most proactive corporate sustainability strategies are the ones that do not shy away from accepting tensions (Smith and Tushman 2005) but simultaneously pursue seemingly contradictory strategic orientations (Raisch and Birkinshaw 2008) to respond to sustainability challenges. Our framework offers the analytical lens to develop such strategies as it allows decision-makers to distinguish between those situations where it is worth accepting tensions due to their positive overall contribution to sustainability from other situations which generate negative overall sustainability effects and hence should be avoided. Thus, our framework can assist managers to better judge conflicting sustainability aspects in order to "clarify the competing considerations, probe what gives them weight, and explore their relationship" (Margolis and Walsh 2003, p. 284).

With regard to future research opportunities, the discussion of the four exemplary tensions above has highlighted that a systematic analysis of tensions in corporate sustainability offers promising avenues for a better understanding of managerial responses to various sustainability challenges. As illustrated by the discussion of each of the four exemplary tensions, research on the wide range of different tensions that can be identified along the different dimensions of our framework will require, in all likelihood, different theoretical lenses. Characterising a specific tension through our framework should help to define suitable conceptual, theoretical and methodological approaches for future research on tensions in corporate sustainability.

Concluding Remarks

The emerging integrative view on corporate sustainability posits that firms need to address

economic, environmental and social aspects simultaneously without, a priori, emphasising one aspect over another – even if this entails tensions and conflicts. Our systematic framework adds to this emerging literature by proposing dimensions for the analysis of such tensions. We improve the understanding of the very nature of tensions in corporate sustainability which, in turn, should enable firms to acknowledge and manage such tensions rather than dismiss them. By doing so, we take into account the managerial reality that corporate decision-makers are frequently confronted with situations where they need to deal with conflicting sustainability aspects. The magnitude of change that sustainable development requires at the individual, organisational and systemic levels makes it unlikely that firms will be able to provide substantive contributions to sustainability without the willingness and ability to understand and embrace the tensions that come with it. Our framework thus helps to unbundle the complex corporate challenge to acknowledge and manage tensions in corporate sustainability in a proactive way and opens up promising avenues for future research and improved managerial guidance.

REFERENCES

Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the s back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review, 32*(3), 836-863.

Aldrich, H. E., & Fiol, C. M. (1994). Fools Rush in? The Institutional Context of Industry Creation. *Academy of Management Review, 19*(4), 645-670.

Allen, K., Galiano, M., & Hayes, S. (2011). *Global companies volunteering globally: The Final Report of the Global Corporate Volunteering Research Project*. Washington, D.C.: International Association for Volunteer Effort.

Andersson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: championing natural environmental issues in U.S. business organizations. *Academy of Management Journal, 43*(4), 548-570.

Aragón-Correa, J. A., & Rubio-López, E. A. (2007). Proactive Corporate Environmental Strategies: Myths and Misunderstandings. *Long Range Planning, 40*(3), 357-381.

Ayres, R. U. (2008). Sustainability economics: Where do we stand? *Ecological Economics, 67*(2), 281-310.

Bakker, S., van Lente, H., & Engels, R. (2012). Competition in a technological niche: the cars of the future. *Technology Analysis & Strategic Management, 24*(5), 421-434.

Banerjee, S. B. (2001). Managerial perceptions of corporate environmentalism: interpretations from industry and strategic implications for organizations. *Journal of Management Studies, 38*(4), 489–513.

Bansal, P. (2002). The Corporate Challenges of Sustainable Development. *Academy of Management Executive 16*(2), 122-131.

Bansal, P. (2003). From issues to actions: The importance of individual concerns and organizational values in responding to natural environmental issues. *Organization Science, 14*(5), 510-527.

Bansal, P. (2005). Evolving Sustainably: A Longitudinal Study of Corporate Sustainable Development. *Strategic Management Journal, 26*(3), 197-218.

Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and Structuration: Studying the Links between Action and Institution. *Organization Studies, 18*(1), 93-117.

Barnett, M. L., & Salomon, R. M. (2012). Does it pay to be really good? addressing the shape of the relationship between social and financial performance. *Strategic Management Journal, 33*(11), 1304-1320.

Bassett-Jones, N. (2005). The Paradox of Diversity Management, Creativity and Innovation. *Creativity and Innovation Management, 14*(2), 169-175.

Basu, K., & Palazzo, G. (2008). Corporate social responsibility: A process model of sensemaking. *Academy of Management Review, 33*(1), 122-136.

Battilana, J., & Dorado, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal, 53*(6), 1419-1440.

Beech, N., Burns, H., de Caestecker, L., MacIntosh, R., & MacLean, D. (2004). Paradox as invitation to act in problematic change situations. *Human Relations, 57*(10), 1313-1332.

Bentley, J. W. (1994). Facts, fantasies, and failures of farmer participatory research. *Agriculture and human values, 11*(2-3), 140-150.

Berger, I. E., Cunningham, P., & Drumwright, M. E. (2007). Mainstreaming Corporate Social Responsibility: Developing Markets for Virtue. *California Management Review, 49*(4), 132-157.

Berrone, P., & Gomez-Mejia, L. R. (2009). The pros and cons of rewarding social responsibility at the top. *Human Resource Management, 48*(6), 959-971.

Bluffstone, R., Boscolo, M., & Molina, R. (2002, 17-21 June). *How Does Community Forestry Affect Rural Households? A Labor Allocation Model of the Bolivian Andes.* Paper presented at the The Commons in an Age of Globalisation, the Ninth Biennial Conference of the International Association for the Study of Common Property, Victoria Falls, Zimbabwe.

Bouchikhi, H. (1998). Living with and Building on Complexity: A Constructivist Perspective on Organizations. *Organization, 5*(2), 217-232.

Broome, J. (1994). Discounting the Future. *Philosophy & Public Affairs, 23*(2), 128-156.

Cable, D. M., & DeRue, D. S. (2002). The Convergent and Discriminant Validity of Subjective Fit Perceptions. *Journal of Applied Psychology, 87*(5), 875-884.

Campbell, J. L. (2007). Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility. *Academy of Management Review 32*(3), 946-967.

Cardoso, I. M., Guijt, I., Franco, F. S., Carvalho, A. F., & Ferreira Neto, P. S. (2001). Continual learning for agroforestry system design: university, NGO and farmer partnership in Minas Gerais, Brazil. *Agricultural Systems, 69*(3), 235-257.

Carpenter, S., Walker, B., Anderies, J. M., & Abel, N. (2001). From Metaphor to Measurement: Resilience of What to What? *Ecosystems, 4*(8), 765-781.

Christmann, P. (2004). Multinational companies and the natural environment: Determinants of global environmental policy standardization. *Academy of Management Journal, 47*(5), 747-760.

Clarkson, M. B. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review, 20*(1), 92-117.

Clegg, S. R., da Cunha, J. V., & e Cunha, M. P. (2002). Management Paradoxes: A Relational View. *Human Relations, 55*(5), 483-503.

Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal, 43*(4), 627-641.

Daily, B. F., & Huang, S.-c. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of Operations & Production Management, 21*(12), 1539-1552.

Dart, R. (2004). The legitimacy of social enterprise. *Nonprofit Management and Leadership, 14*(4), 411-424.

de Graaf, F. J., & Herkströter, C. A. J. (2007). How Corporate Social Performance Is Institutionalised Within the Governance Structure. *Journal of Business Ethics, 74*(2), 177-189.

Dentchev, N. A. (2004). Corporate Social Performance as a Business Strategy. *Journal of Business Ethics, 55*(4), 397-412.

Devinney, T. M. (2009). Is the Socially Responsible Corporation a Myth? The Good, the Bad, and the Ugly of Corporate Social Responsibility. *Academy of Management Perspectives, 23*(2), 44-56.

Dijk, M., Orsato, R. J., & Kemp, R. (2013). The emergence of an electric mobility trajectory. *Energy Policy, 52*, 135-145.

DiMaggio, P., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*(April), 147-160.

Donaldson, T., & Dunfee, T. W. (1994). Toward a unified conception of business ethics: Integrative social contracts theory. *Academy of Management Review, 19*(2), 252-284.

Dyllick, T., & Hockerts, K. (2002). Beyond the Business Case for Corporate Sustainability. *Business Strategy and the Environment, 11*(2), 130-141.

Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology, 5*(1), 105-123.

Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Gabriola Island, British Columbia, Canada: New Society.

European Commission. (1998). State of Application of Regulation (EEC) No. 2078/92: Evaluation of Agrienvironmental Programmes. *DGVI Commission Working Document (VI/7655/98)*.

Fenwick, T. (2007). Developing organizational practices of ecological sustainability: a learning perspective. *Leadership & Organization Development Journal, 28*(7), 632-645.

Figge, F. (2004). Bio-Folio. Applying portfolio theory to biodiversity. *Biodiversity and Conservation, 13*(4), 827-849.

Figge, F., & Hahn, T. (2008). Sustainable Investment Analysis with the Sustainable Value Approach – A Plea and a Methodology to Overcome the Instrumental Bias in Socially Responsible Investment Research. *Progress in Industrial Ecology, 5*(3), 255-272.

Fineman, S., & Clarke, K. (1996). Green stakeholders: industry interpretations and response. *Journal of Management Studies, 33*(6), 715-730.

Fiss, P. C., & Zajac, E. J. (2006). The Symbolic Management of Strategic Change: Sensegiving via Framing and Decoupling. *Academy of Management Journal, 49*(6), 1173-1193.

Fleischer, D. (2009). *Green Teams: Engaging Employees in Sustainability*. Mill Vammey, CA: Green Impact.

Ford, J. D., & Ford, L. W. (1994). Logics of Identity, Contradiction, and Attraction in Change. *Academy of Management Review, 19*(4), 756-785.

Fraser, E., Mabee, W., & Figge, F. (2005). A Framework for Assessing Vulnerability in the Food System. *Futures, 37*(6), 465-479.

Fraser, E. G. (2007). Travelling in antique lands: Using past famines to develop an adaptability/resilience framework to identify food systems vulnerable to climate change. *Climatic Change, 83*(4), 495-514.

Gao, J., & Bansal, P. (2013). Instrumental and Integrative Logics in Business Sustainability. *Journal of Business Ethics, 112*(2), 241-255.

Gladwin, T. N., Kennelly, J. J., & Krause, T.-S. (1995). Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of Management Review, 20*(4), 874-907.

Glen, J., Hilson, C., & Lowitt, E. (2009). The emergence of green talent. *Business Strategy Review, 20*(4), 52-56.

Goerner, S. J., Lietaer, B., & Ulanowicz, R. E. (2009). Quantifying economic sustainability: Implications for free-enterprise theory, policy and practice. *Ecological Economics, 69*(1), 76-81.

Granovetter, M. (1985). Economic action and social structure: the problem of embeddedness. *American Journal of Sociology, 91*(3), 481-510.

Grant, A. M. (2012). Giving Time, Time After Time: Work Design and Sustained Employee Participation in Corporate Volunteering. *Academy of Management Review, 37*(4), 589-615.

Hahn, T. (2012). Reciprocal Stakeholder Behavior: A Motive-Based Approach to the Implementation of Normative Stakeholder Demands. *Business & Society, published online*.

Hahn, T., & Figge, F. (2011). Beyond the Bounded Instrumentality in Current Corporate Sustainability Research: Toward an Inclusive Notion of Profitability. *Journal of Business Ethics, 104*(3), 325-345.

Hahn, T., Figge, F., Pinkse, J., & Preuss, L. (2010). Trade-Offs in Corporate Sustainability: You Can't Have Your Cake and Eat It. *Business Strategy and the Environment, 19*(4), 217-229.

Haigh, N., & Hoffman, A. J. (2012). Hybrid organizations: The next chapter of sustainable business. *Organizational Dynamics, 41*(2), 126-134.

Hall, J. K., & Martin, M. J. C. (2005). Disruptive technologies, stakeholders and the innovation value-added chain: a framework for evaluating radical technology development. *R&D Management, 35*(3), 273-284.

Hargadon, A. B., & Douglas, Y. (2001). When Innovations Meet Institutions: Edison and the Design of the Electric Light. *Administrative Science Quarterly, 46*(3), 476-501.

Hargreaves, T. (2011). Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture, 11*(1), 79-99.

Hart, S., & Milstein, M. B. (1999). Global Sustainability and the Creative Destruction of Industries. *Sloan Management Review, 41*(1), 23-33.

Heffner, R. R., Kurani, K. S., & Turrentine, T. S. (2007). Symbolism in California's early market for hybrid electric vehicles. *Transportation Research Part D: Transport and Environment, 12*(6), 396-413.

Held, M. (2001). Sustainable Development from a Temporal Perspective. *Time & Society, 10*(2-3), 351-366.

Hemingway, C., & Maclagan, P. (2004). Managers' Personal Values as Drivers of Corporate Social Responsibility. *Journal of Business Ethics, 50*(1), 33-44.

Henriques, I., & Sadorsky, P. (1999). The relationship between environmental commitment and managerial perceptions of stakeholder importance. *Academy of Management Journal, 42*(1), 87-99.

Hoffman, A. J. (2001). *From heresy to dogma: an institutional history of corporate environmentalism* (expanded ed. ed.). Stanford: Stanford University Press.

Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual review of ecology and systematics, 4*, 1-23.

Holt, D., & Watson, A. (2008). Exploring the dilemma of local sourcing versus international development - the case of the flower industry. *Business Strategy and the Environment, 17*(5), 318-329.

Husted, B. W., & de Jesus Salazar, J. (2006). Taking Friedman Seriously: Maximizing Profits and Social Performance. *Journal of Management Studies, 43*(1), 75-91.

Huzzard, T., & Östergren, K. (2002). When Norms Collide: Learning under Organizational Hypocrisy. *British Journal of Management, 13*(S2), S47-S59.

Isaksen, S. G., & Ekvall, G. (2010). Managing for Innovation: The Two Faces of Tension in Creative Climates. *Creativity and Innovation Management, 19*(2), 73-88.

Jarzabkowski, P. (2008). Shaping strategy as a structuration process. *Academy of Management Journal, 51*(4), 621-650.

Jarzabkowski, P., & Fenton, E. (2006). Strategizing and Organizing in Pluralistic Contexts. *Long Range Planning, 39*(6), 631-648.

Jennings, P. D., & Zandbergen, P. A. (1995). Ecologically sustainable organizations: An institutional approach. *Academy of Management Review, 20*(4), 1015-1052.

Kaptein, M., & Wempe, J. (2001). Sustainability Management. Balancing Conflicting Economic, Environmental and Social Corporate Responsibilities. *Journal of Corporate Citizenship, 1*(2), 91-106.

Kates, R. W., & Clark, W. C. (1996). Environmental surprise: expecting the unexpected? *Environment: Science and Policy for Sustainable Development, 38*(2), 6-34.

Kleine, A., & Hauff, M. (2009). Sustainability-Driven Implementation of Corporate Social Responsibility: Application of the Integrative Sustainability Triangle. *Journal of Business Ethics, 85*(3), 517-533.

Kolk, A., & Perego, P. (2013). Sustainable Bonuses: Sign of Corporate Responsibility or Window Dressing? *Journal of Business Ethics, In press*.

Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations: Foundations, extensions, and new directions* (pp. 3-90). San Francisco, CA: Jossey-Bass.

Kristof, A. L. (1996). Person-Organization Fit: An Integrative Review of its Conceptualizations, Measurement, and Implications. *Personnel Psychology, 49*(1), 1-49.

Laverty, K. J. (1996). Economic "Short-Termism": The Debate, the Unresolved Issues, and the Implications for Management Practice and Research. *Academy of Management Review, 21*(3), 825-860.

Lawrence, T. B., & Suddaby, R. (2006). Institutions and Institutional Work. In S. Clegg, C. Hardy, T. B. Lawrence & W. R. Nord (Eds.), *The SAGE Handbook of Organization Studies* (Vol. 2nd ed, pp. 215-254). London and Thousand Oaks: SAGE.

Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change. *Policy Sciences, 45*(2), 123-152.

Lewis, M. W. (2000). Exploring Paradox: Toward a More Comprehensive Guide. *Academy of Management Review, 25*(4), 760-776.

Liu, G. (2012). Impacts of Instrumental Versus Relational Centered Logic on Cause-Related Marketing Decision Making. *Journal of Business Ethics, published online*.

López, R. E., Anríquez, G., & Gulati, S. (2007). Structural change and sustainable development. *Journal of Environmental Economics and Management, 53*(3), 307-322.

Lüscher, L. S., & Lewis, M. W. (2008). Organizational Change and Managerial Sensemaking: Working through Paradox. *Academy of Management Journal, 51*(2), 221-240.

Mackenzie, C. (2007). Boards, Incentives and Corporate Social Responsibility: the case for a change of emphasis. *Corporate Governance: An International Review, 15*(5), 935-943.

Maon, F., Lindgreen, A., & Swaen, V. (2008). Thinking of the organization as a system: The role of managerial perceptions in developing a corporate social responsibility strategic agenda. *Systems Research and Behavioral Science, 25*(3), 413-426.

Marginson, D., & McAulay, L. (2008). Exploring the debate on short-termism: a theoretical and empirical analysis. *Strategic Management Journal, 29*(3), 273-292.

Margolis, J. D., & Walsh, J. (2003). Misery Loves Companies: Rethinking Social Initiatives by Business. *Administrative Science Quarterly, 48*(2), 268-305.

Markusson, N. (2010). The championing of environmental improvements in technology investment projects. *Journal of Cleaner Production, 18*(8), 777-783.

Maynard, M., Bunkley, N., & Chapman, M. M. (2007, 4 July 2007). Say 'Hybrid' and Many People Will Hear 'Prius' *The New York Times*.

Meadows, D. H. (1972). *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. London: Earth Island.

Midttun, A. (2007). Corporate responsibility from a resource and knowledge perspective Towards a dynamic reinterpretation of C(S)R: are corporate responsibility and innovation compatible or contradictory? *Corporate Governance, 4*(2), 401-413.

Mirvis, P., & Googins, B. (2006). Stages of Corporate Citizenship. *California Management Review, 48*(2), 104-126.

Mosakowski, E., & Earley, P. C. (2000). A Selective Review of Time Assumptions in Strategy Research. *Academy of Management Review, 25*(4), 796-812.

Muthuri, J. N., Matten, D., & Moon, J. (2009). Employee Volunteering and Social Capital: Contributions to Corporate Social Responsibility. *British Journal of Management, 20*(1), 75-89.

Newton, T. J. (2002). Creating the New Ecological Order? Elias and Actor-Network Theory. *Academy of Management Review, 27*(4), 523-540.

Okereke, C. (2006). Global environmental sustainability: Intragenerational equity and conceptions of justice in multilateral environmental regimes. *Geoforum, 37*(5), 725-738.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review, 16*(1), 145-179.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403-441.

Orlove, B. S., & Godoy, R. (1986). Sectoral Fallowing Systems in the Central Andes. *Journal of Ethnobiology, 6*(1), 169-204.

Orsato, R. J., & Wells, P. (2007). U-turn: the rise and demise of the automobile industry. *Journal of Cleaner Production, 15*(11-12), 994-1006.

Ozaki, R., & Sevastyanova, K. (2011). Going hybrid: An analysis of consumer purchase motivations. *Energy Policy, 39*(5), 2217-2227.

Padilla, E. (2002). Intergenerational equity and sustainability. *Ecological Economics, 41*(1), 69-83.

Pajo, K., & Lee, L. (2011). Corporate-Sponsored Volunteering: A Work Design Perspective. *Journal of Business Ethics, 99*(3), 467-482.

Pearce II, J. A., & Doh, J. (2005). The High Impact of Collaborative Social Initiatives. *MIT Sloan Management Review, 46*(3), 29-39.

Pellow, D. N., Weinberg, A., & Schnaiberg, A. (2001). The Environmental Justice Movement: Equitable Allocation of the Costs and Benefits of Environmental Management Outcomes. *Social Justice Research, 14*(4), 423-439.

Peloza, J., & Hassay, D. (2006). Intra-organizational Volunteerism: Good Soldiers, Good Deeds and Good Politics. *Journal of Business Ethics, 64*(4), 357-379.

Penker, M. (2008). Governing Austrian Landscapes: Shifts Along the Private-Public Divide. In T. Sikor (Ed.), *Public and private in natural resource governance: A false dichotomy?* (pp. 89-106). London: Earthscan.

Pinkse, J., & Groot, K. (2013). Sustainable Entrepreneurship and Corporate Political Activity: Overcoming Market Barriers in the Clean Energy Sector. *Entrepreneurship Theory and Practice*, Early view.

Poole, M. S., & Van de Ven, A. H. (1989). Using paradox to build management and organization theories. *Academy of Management Review, 14*(4), 562-578.

Portney, P. R., & Weyant, J. P. (Eds.). (1999). *Discounting and Intergenerational Equity*. Washington D.C.: Resources for the Future.

Preuss, L., & Walker, H. (2011). Psychological barriers in the road to sustainability: Evidence from public sector procurement. *Public Administration: An International Quarterly, 89*(2), 493-521.

Raisch, S., & Birkinshaw, J. (2008). Organizational Ambidexterity: Antecedents, Outcomes, and Moderators. *Journal of Management, 34*(3), 375-409.

Rothenberg, S. (2003). Knowledge Content and Worker Participation in Environmental Management at NUMMI. *Journal of Management Studies, 40*(7), 1783-1802.

Rousseau, D. M. (1985). Issues of level in organizational research: Multi-level and cross-level perspectives. In L. L. Cummings & B. M. Staw (Eds.), *Research in Organizational Behavior* (Vol. 7, pp. 1-37). Greenwich, CT: JAI Press.

Sanders, W. G., & Tuschke, A. (2007). The adoption of institutionally contested organizational practices: The emergence of stock option pay in Germany. *Academy of Management Journal, 50*(1), 33-56.

Schifrin, D., & Burgelman, R. A. (2011). Nissan's Electric Vehicle Strategy in 2011: Leading the Way Toward Zero-Emission, *Case SM-189*. Stanford, CA: Stanford Graduate School of Business.

Schütz, J. (1999). Organising Diversity. In J. Köhn, J. M. Gowdy, F. Hinterberger & J. van der Straaten (Eds.), *Sustainability In Question: The Search for a Conceptual Framework* (pp. 101-123). Cheltenham: Edward Elgar Publishing.

Schwartz, M. S., & Carroll, A. B. (2008). Integrating and Unifying Competing and Complementary Frameworks. The Search for a Common Core in the Business and Society Field. *Business & Society, 47*(2), 148-186.

Scott, W. R. (2001). *Institutions and organizations* (2. ed. ed.). Thousand Oaks: Sage Publications.

Seibert, S. E., Silver, S. R., & Randolph, W. A. (2004). Taking Empowerment to the Next Level: A Multiple-Level Model of Empowerment, Performance, and Satisfaction. *Academy of Management Journal, 47*(3), 332-349.

Seo, M.-G., & Creed, W. E. D. (2002). Institutional contradictions, praxis, and institutional change: a dialectical perspective. *Academy of Management Review, 27*(2), 222-247.

Sharp, Z., & Zaidman, N. (2010). Strategization of CSR. *Journal of Business Ethics, 93*(1), 51-71.

Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of Management Review, 20*(4), 936-960.

Slawinski, N., & Bansal, P. (2012). A Matter of Time: The Temporal Perspectives of Organizational Responses to Climate Change. *Organization Studies, 33*(11), 1537-1563.

Smith, A. (1776). *An Inquiry Into the Nature and Causes of the Wealth of Nations*. Oxford: Clarendon Press.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review, 36*(2), 381-403.

Smith, W. K., & Tushman, M. L. (2005). Managing Strategic Contradictions: A Top Management Model for Managing Innovation Streams. *Organization Science, 16*(5), 522-536.

Starik, M., & Rands, G. P. (1995). Weaving an Integrated Web: Multilevel and Multisystem Perspectives of Ecologically Sustainable Organizations. *Academy of Management Review, 20*(4), 908-935.

Sundaramurthy, C., & Lewis, M. (2003). Control and Collaboration: Paradoxes of Governance. *Academy of Management Review, 28*(3), 397-415.

Swift, M. J., Izac, A. M. N., & van Noordwijk, M. (2004). Biodiversity and ecosystem services in agricultural landscapes—are we asking the right questions? *Agriculture, Ecosystems & Environment, 104*(1), 113-134.

Swinton, S. M., & Quiroz, R. (2003). Is Poverty to Blame for Soil, Pasture and Forest Degradation in Peru's Altiplano? *World Development, 31*(11), 1903-1919.

Tesluk, P. E., Vance, R. J., & Mathieu, J. E. (1999). Examining Employee Involvement in the Context of Participative Work Environments. *Group & Organization Management, 24*(3), 271-299.

Van Buskirk, J., & Willi, Y. (2004). Enhancement of farmland biodiversity within set-aside land. *Conservation Biology, 18*(4), 987-994.

Vetter IMS Corp. (2012). Case Study - Staff Suggestion Scheme success British Airways' £20 mn savings.   Retrieved 29 October 2013, from http://www.getvetter.com/casestudies/britishairwaysstaffsuggestionscheme

Vollebergh, H. R. J., & Kemfert, C. (2005). The role of technological change for a sustainable development. *Ecological Economics, 54*(2-3), 133-147.

Vyakarnam, S. (1992). Social responsibility: What leading companies do. *Long Range Planning, 25*(5), 59-67.

Wade-Benzoni, K. (2002). A Golden Rule Over Time: Reciprocity in Intergenerational Allocation Decisions. *Academy of Management Journal, 45*(5), 1011-1028.

Walley, N., & Whitehead, B. (1994). It's not easy being green. *Harvard Business Review, 72*(3), 46-52.

WCED. (1987). *Our Common Future*. Oxford: World Commission on Environment and Development and Oxford University Press.

Whiteman, G., Walker, B., & Perego, P. (2013). Planetary Boundaries: Ecological Foundations for Corporate Sustainability. *Journal of Management Studies, 50*(2), 307-336.

Whitfield, J. (2006). Agriculture and environment: How green was my subsidy? *Nature, 439*(7079), 908-909.

Wilson, M. (2003). Corporate sustainability: What is it and where does it come from? *Ivey Business Journal, March/April*, 1-5.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a Theory of Organizational Creativity. *Academy of Management Review, 18*(2), 293-321.

Xerox Corporation. (2013, 4 February 2013). Xerox Shares Business Process Expertise with Non-Profits through Employee Paid Leave Program.   Retrieved 26 June 2013, from http://news.xerox.com/news/xerox-shares-business-process-expertise-with-non-profits-through-employee-paid-leave-program

York, R., & Rosa, E. A. (2003). Key Challenges to Ecological Modernization Theory: Institutional Efficacy, Case Study Evidence, Units of Analysis, and the Pace of Eco-Efficiency. *Organization & Environment, 16*(3), 273-288.

Yuan, W., Bao, Y., & Verbeke, A. (2011). Integrating CSR Initiatives in Business: An Organizing Framework. *Journal of Business Ethics, 101*(1), 75-92.

Zuindeau, B. (2007). Territorial Equity and Sustainable Development. *Environmental Values, 16*(2), 253-268.

FIGURE 1:

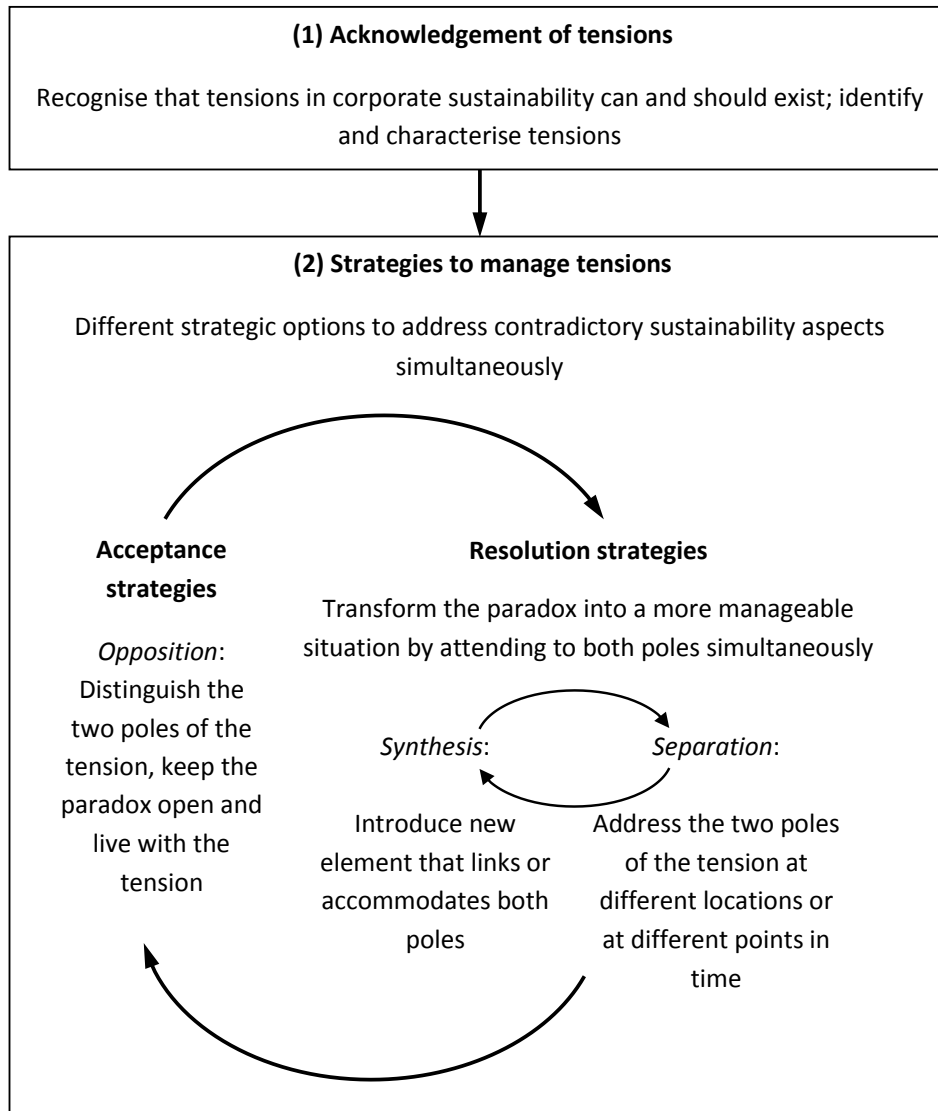Acknowledging and managing tensions in corporate sustainability

(1) Acknowledgement of tensions

Recognise that tensions in corporate sustainability can and should exist; identify and characterise tensions

(2) Strategies to manage tensions

Different strategic options to address contradictory sustainability aspects simultaneously

Acceptance strategies

Opposition: Distinguish the two poles of the tension, keep the paradox open and live with the tension

Resolution strategies

Transform the paradox into a more manageable situation by attending to both poles simultaneously

Synthesis:

Separation:

Introduce new element that links or accommodates both poles

Address the two poles of the tension at different locations or at different points in time

FIGURE 2

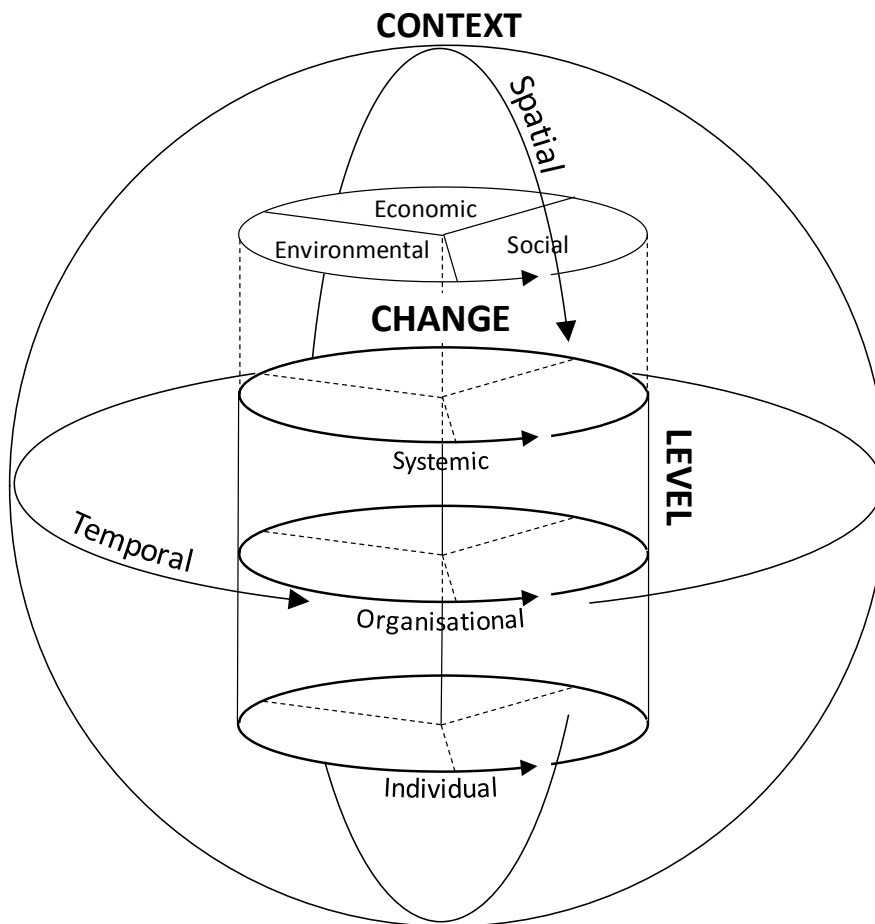Systematic Framework for the Analysis of Tensions in Corporate Sustainability

TABLE 1

Characteristics of Selected Tensions and Related Strategies

Tension	Identification: Positioning in the framework	Characterisation: Underlying logic	Strategies		
				Resolution strategies	
			Acceptance strategies	Separation strategies	Synthesis strategies
Personal versus organisational sustainability agendas	Personal agenda for sustainability vs. organisational sustainability agenda. Tension refers to change processes with regard to addressing different economic, environmental and social aspects and is situated between the individual and the organisational levels.	Organisational members' propensity to address social and environmental issues may be constrained by structural elements of the organisation, such as planning, resource allocation or incentive schemes that include or exclude sustainability issues.	Create an organisational climate of participation and creativity to foster informal but constructive debate and fluid information exchange over divergent agendas across management levels and functions.	Create temporal pockets within the organisation or spaces outside the organisations where organisational members can pursue their personal sustainability agendas.	Institute empowering structures and policies that enable organisational members to participate in enacting the organisational agenda in an emergent and interactive way.
Corporate short-term versus long-term orientation	Short-term orientation of an organisation's financial objectives vs. need for long-term orientation for environmental protection and social equity. Tension refers to the different temporal foci of economic, environmental and social aspects and is situated within the temporal dimension of context.	Due to an intertemporal choice problem, corporate decision-makers make choices that are best for the short term but might have detrimental impacts for the long term.	Implement compensation packages that combine short and long-term objectives by integrating financial and non-financial performance criteria.	Make long-term orientation a core responsibility of top management to create room for manoeuvre at a lower level.	Implement an alternative corporate governance structure that is more forgiving of not meeting short-term financial objectives.
Isomorphism versus structural and	Need for change for sustainability vs. isomorphic pressures that stabilise	Demands for fundamentally changed products and business models for more	Combine products and services based on well-established practices to	Concentrate established business in markets where traditional institutional	Engage in institutional change and actively seek to shape institutional

technological change	extant practices. Tension acts between environmental and social aspects in change processes and operates between organisational and systemic levels.	sustainability jar with well-established and institutionalised practices so that change comes at the risk of institutional disapproval and loss of legitimacy.	maintain legitimacy with experimental practices to launch alternative offerings despite institutional disapproval.	prevail while launching innovative solutions and novel business models in market segments where institutional change has already taken place.	expectations in favour of more sustainable business practices.
Efficiency versus resilience of socioeconomic systems	Tension between efficiency of organisations and resilience of socio-economic systems, i.e. their ability to absorb shocks. Tension refers to conflicting processes between the organisational and the systemic level.	Under similar conditions single firms adopt similar solutions to increase their efficiency. Such homogenisation leads to a loss of diversity and thus lower resilience at the systemic level.	Instigate cooperation between parties with opposing interests in efficiency and diversity to foster mutual understanding of the tension and work towards creative solutions.	Address efficiency and diversity at different levels of decision making to meet both objectives independently.	Develop institutions that regulate and coordinate single organisations' decisions to reduce tensions between efficiency of the individual firm and resilience of the system.