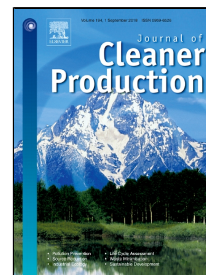


Accepted Manuscript

Managing tensions in sustainable business models: Exploring instrumental and integrative strategies

Koen van Bommel



PII: S0959-6526(18)31713-X
DOI: 10.1016/j.jclepro.2018.06.063
Reference: JCLP 13209
To appear in: *Journal of Cleaner Production*
Received Date: 30 September 2016
Accepted Date: 07 June 2018

Please cite this article as: Koen van Bommel, Managing tensions in sustainable business models: Exploring instrumental and integrative strategies, *Journal of Cleaner Production* (2018), doi: 10.1016/j.jclepro.2018.06.063

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Managing tensions in sustainable business models: Exploring instrumental and integrative strategies

Koen van Bommel
Department of Management & Organization
Vrije Universiteit Amsterdam
De Boelelaan 1105
1081 HV Amsterdam
The Netherlands
k.van.bommel@vu.nl

Abstract

This study empirically examines tensions around business model innovations for sustainability and the strategies that organizations employ to manage these tensions. A central conjecture of the study is that in order to successfully manage sustainable business models, firms need to confront sustainability's oftentimes paradoxical tensions. The research examined 30 firms that had sought to make business model innovations for sustainability; the results suggest that one group of organizations was shy of embracing these tensions and relied primarily on an instrumental or narrow 'business case' approach, viewing sustainability as an "either/or" scenario. However, another group of firms was aiming to work through these tensions by utilizing more paradoxical or integrative strategies, thus aiming for a "both/and" scenario. This group found it easier to manage their sustainable business models. The results highlight how applying the lens of paradox can help organizations to make sense of the complexity of sustainability; paradoxical thinking can help to reduce tensions, ambiguity and uncertainty and improve the management of complex sustainability challenges. In addition to their practical relevance, the findings have implications for both the literature on sustainable business models and the emerging paradox perspective on corporate sustainability.

Keywords

Business case, corporate sustainability, instrumental approach, integrative approach, paradox, sustainable business models, tensions.

1 Introduction

Today's world is rife with problems of environmental degradation, inequality, poverty and social injustice. Since organizations are recognized as being part of both the problem and the solution (Smith and Tracey, 2016), work on a transition towards corporate sustainability has proliferated (Aguinis and Glavas, 2012; Crane et al., 2014a). A vibrant research area in this respect is sustainable business models (SBMs) (Schaltegger et al., 2016, 2012; Stubbs and Cocklin, 2008). These business models allow firms to focus on “describing, analyzing, managing, and communicating (i) a company's sustainable value proposition to its customers, and all other stakeholders, (ii) how it creates and delivers this value, (iii) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organizational boundaries” (Schaltegger et al., 2016, p. 4). SBMs require business model innovations (Evans et al., 2017; Schaltegger et al., 2012) to help in “re-conceptualising the purpose of the firm and the value creating logic, and rethinking perceptions of value” (Bocken et al., 2014, p. 43). This article considers how thinking, and managing, paradoxically can help firms' innovations for business models for sustainability.

There are many different types of SBMs (Bocken et al., 2014) such as social enterprises (Doherty et al., 2014), hybrid organizations (Haigh et al., 2015), product service systems (PSS) (Tukker, 2004) and closed-loop (Wells and Seitz, 2005) or circular models (Manninen et al., 2018). To date, studies have examined the potential for SBMs to support business cases and competitive advantage (Loorbach and Wijsman, 2013; Schaltegger et al., 2012), including the structural and cultural capabilities that SBMs require (Stubbs and Cocklin, 2008; Wells, 2016). Extant work also has examined various model building blocks (Osterwalder and Pigneur, 2010) such as stakeholders (Matos and Silvestre, 2013), supply chains (Boons and Mendoza, 2010) and customers (Anttonen et al., 2013). However, there is a dearth of research on how to adopt and manage business model innovations for sustainability (Evans et al., 2017; Loorbach and Wijsman, 2013).

SBMs are notoriously complex since they require systematic coordination of stakeholder demands (Evans et al., 2017) and simultaneous attention to social, environmental and economic value (Gao and Bansal, 2013; Hahn et al., 2018, 2015; Schaltegger et al., 2016). However, frequently economic prosperity, environmental integrity and social equity are “inextricably connected and internally interdependent” (Bansal, 2002, p. 123). Therefore, SBMs typically

include paradoxical tensions (e.g. short-term/long-term; profit/ethics; stakeholder/shareholder), defined as “contradictory yet interrelated elements that exist simultaneously and persist over time” (Smith and Lewis, 2011, p. 382). Recognizing and coping with tensions is important for SBMs success, but how to do so to date remains less clear (cf. Prendeville et al., 2017).

There is a stream of corporate sustainability research that focuses on instrumental strategies which either seek trade-offs between economic, social and environmental objectives, or aim to align these objectives to pursue win-win business cases (Gao and Bansal, 2013; Van der Byl and Slawinski, 2015). However, in both instances, the tensions between often disparate objectives are largely ignored. Another strand of work adopts an integrative approach and “recognizes and embraces the contradictions among the financial, social and environmental dimensions of business and seeks solutions for the system of interrelated elements” (Gao and Bansal, 2013, p. 244). Rather than dismissing the tensions, this approach accommodates paradoxical thinking. That is, instead of treating tensions in an either/or type manner, it pursues a both/and approach which seeks to embrace and engage competing demands simultaneously (Lewis et al., 2014; Lüscher and Lewis, 2008).

Overall, the aim of the present research is to gain insights into the tensions firms working on business model innovations for sustainability face, and how they can manage these tensions. It is conjectured that in order to manage SBM innovations successfully, firms need to be able to confront rather than dismiss the paradoxical tensions of sustainability. To conduct the study, 30 sustainability professionals from firms that seek to make business model innovations for sustainability were interviewed.¹ The information gleaned from these interviews, allowed identification of the main tensions experienced by firms, and the strategies used to manage these tensions. Moreover, the study finds firms that draw primarily on instrumental strategies find it more difficult to manage SBMs compared to firms that use integrative strategies based on paradoxical thinking. By proactive acknowledgement and acceptance of the existence of these tensions, the latter group of firms experience less ambiguity and uncertainty.

This study seeks to make three contributions to theory and practice. First and foremost, it contributes to the literature on SBMs, and particularly studies of the mechanisms used by

¹ Business model innovations for sustainability are diverse (see e.g. Bocken et al., 2014 on archetypes). While these innovations can be revolutionary and create entirely new types of business, they can also be evolutionary and adjust gradually to the existing business. The firms participating in the study were selected based on their SBM innovations although the nature and scope of these innovations vary.

organizations to manage SBM innovation (e.g. Roome and Louche, 2016; Schaltegger et al., 2016). It sheds light on the potential value of a paradox perspective to examine SBMs. Such a perspective potentially can reduce tensions, ambiguity and uncertainty, and contribute to the management of complex sustainability challenges. Second, this study contributes to an increasing body of work on paradox and corporate sustainability (Hahn et al., 2018, 2015, 2014; Scherer et al., 2013; Slawinski and Bansal, 2015; Van der Byl and Slawinski, 2015). So far, these studies are primarily conceptual; the present study offers additional empirical insights into the tensions experienced by managers and firms and how they are handled. Third, the results have implications for practitioners in showing how the embrace of tensions can help managers to make better sense of the overall complexity of these models facilitating their more successful management.

2 Theory

Below first several central aspects of SBMs and corporate sustainability are discussed. Next, some examples of sustainability tensions and the strategies applied to manage them are addressed.

2.1 Business models, SBMs and corporate sustainability

Essentially, a business model relates to how a firm makes profits: the central aspects of a company's business model are "the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit" (Teece, 2010, p. 172). The business model is "important in driving and implementing corporate innovation for sustainability, can help embed sustainability into business purpose and processes, and serve[s] as a key driver of competitive advantage" (Bocken et al., 2014, p. 42). Typically, a business model considers the firm's value proposition, value creation and delivery, and value capture (Richardson, 2008). These three elements generally are linked to the various building blocks comprising the business model architecture (Osterwalder and Pigneur, 2010)², and ultimately make such models the lynch pin between strategy and operational activities (Rauter et al., 2017).

Although research on corporate sustainability is well-established, investigation of SBMs and their diversity is quite recent (e.g. Boons et al., 2013; Schaltegger et al., 2016). For instance,

² Osterwalder and Pigneur (2010) are referring to the central product/service offering, customer segments, customer relationships, channels, activities, resources, partnerships, cost structure and revenue model.

Bocken et al. (2014, p. 48) examine numerous mechanisms and solutions that may contribute to business model innovation for sustainability (e.g. cradle-2-cradle, low carbon manufacturing, collaborative enterprises, ethical trade) which they group into eight archetypes that are socially, organizationally or technologically focused. By combining the different mechanisms related to these archetypes, firms can develop business models which can be categorized as fully, or more typically partially sustainable. In that sense, the extent to which a business model is sustainable should be considered according to a continuum.

Despite the variety of SBMs, they rest on the tenet of creating value through the integration of economic prosperity, environmental integrity and social equity for society at large, rather than prioritizing organizational profit (Boons and Lüdeke-Freund, 2013; Schaltegger et al., 2016, 2012; Stubbs and Cocklin, 2008). However, it is this integration that is difficult, not least because of the numerous tensions that emerge when organizations try to manage what often are conflicting economic, environmental and social aspects. Table 1 which is based on the literature, and especially Lewis (2000), Smith and Lewis (2011) and Hahn et al. (2015), presents categories of tensions; table 2 presents potential strategies to cope with these tensions.

2.2 Tensions in sustainable business models

First, a *performing* tension can arise from the “plurality of stakeholders and their competing strategies and goals” (Smith and Lewis, 2011, p. 384). Not only are there incommensurable environmental, social and financial performance criteria within SBMs (Hahn et al., 2015), there are also proliferating tensions between the demands of external and internal stakeholders at various levels (i.e. individual, organizational, systemic).

Second, there are *belonging* (Smith and Lewis, 2011) tensions which evolve around individual and collective identity issues. That is, within the firm there are opposing but coexisting roles and values which promote conflict of self vs other(s) (Smith and Lewis, 2011). For example, the transformation toward a more sustainable business model can lead to ambiguity among individuals over what the organization is about if a profit motive and a more socially oriented mission coexist.

Third, *organizing* (Smith and Lewis, 2011) or *change* (Hahn et al., 2015) tensions surface when a social/environmental mission is combined with the business requirements of a business model which triggers competition among organizational structures, cultures, practices and

processes (Smith et al., 2013; Smith and Lewis, 2011). For instance, typically organizational design, employee profiles and culture differ among firms depending on whether they follow a more business or social oriented logic; these differences need to be reconciled within the SBM.

Fourth, *learning* (Smith and Lewis, 2011) or *temporal* (Hahn et al., 2015) tensions emerge from the existence of divergent time horizons (Smith et al., 2013, p. 410) in the process of “building upon and destroying the past to create the future” (Smith and Lewis, 2011, p. 383). Sustainability requires a long-term time horizon whereas the managerial reality is related often to the next quarter’s results. Multiple time horizons must be juxtaposed to allow for growth in the future while maintaining stability in the present (Smith and Lewis, 2011).

INSERT TABLE 1 HERE

2.3 Managing tensions

Firms can draw on various strategies to manage tensions. A first and arguably the most common strategy used to manage the tensions around sustainability, follows a win-win logic that focuses on the business case of sustainability (Margolis and Walsh, 2003; Van der Byl and Slawinski, 2015). This *alignment* strategy holds that “any improvement in one dimension of sustainability should improve the other dimensions, or at least should not diminish performance in another area” (Van der Byl and Slawinski, 2015, p. 58). Central to this notion is that sustainability issues are aligned to and subsumed within business goals. This strategy is related to the logic in studies of the relationship between corporate sustainability efforts and firm performance (Barnett and Salomon, 2012; Margolis and Walsh, 2003; Orlitzky et al., 2003). In this strand of work, corporate sustainability is driven by managing risk, brand image, public relations and the company’s reputation as the organization searches for some alignment among the social, environmental and economic dimensions (Van der Byl and Slawinski, 2015). Sustainability is not part of firms’ core organizational processes but rather is a “bolt-on” to the organization (Crane et al., 2014a, p. 67).

A second and somewhat related strategy available to firms can be described as an *avoidance* strategy. Here, the existence of tensions is largely ignored or set aside such as when the choice among sustainability dimensions is achieved by accepting trade-offs. Rather than seeking a win-win through alignment, from a sustainability perspective “a trade-off results in a

win-lose proposition where the net sum gain to sustainability is positive and the impact on economic performance is negative” (Van der Byl and Slawinski, 2015, p. 58). In reality the social, environmental and economic dimensions of corporate sustainability are often treated unequally with the last reigning supreme (Slawinski and Bansal, 2015). In that case, a very explicit choice is made about which goal to prioritize and which to downplay. As a consequence, the tension among conflicting elements is suppressed (Smith and Lewis, 2011).

What both of the above two strategies have in common is their *instrumentality*, i.e. their primary focus on sustainability to achieve profit maximization whether by creating a win-win situation or by achieving a trade-off among the economic, social and environmental aspects. Although this may not seem problematic, it risks the tensions between often disparate sustainability objectives being largely ignored. This can cause problems since avoiding to address the inherent tensions in the search for a ‘win-win wonderland’ might lead to “islands of win-win projects in an ocean of unsolved environmental and social conflicts” (Crane et al., 2014b, p. 139).

An alternative set of more *integrative* strategies is aimed at accepting - even embracing - the sustainability tensions (e.g. Hahn et al., 2015; Van der Byl and Slawinski, 2015). The premise in this case is that the economic, environmental and social dimensions of sustainability are part of a system whose elements are systematically interconnected and interdependent (Berger et al., 2007; Gao and Bansal, 2013; Hahn et al., 2015, 2010). This study argues that these more integrative strategies for dealing with tensions can be examined by drawing on insights from the paradox literature since the focus is on how to manage the contradictory aspects among simultaneously competing demands (Smith and Lewis, 2011).

Paradoxes are “contradictory yet interrelated elements that exist simultaneously and persist over time” and these elements “seem logical individually but inconsistent and even absurd when juxtaposed” (Smith and Lewis, 2011, p. 382). Rather than seeking to avoid or align tensions, the paradox perspective aims to manage the tensions among elements, and integrate sustainability into the organization’s core processes, thereby establishing long-term value creation potential (Crane et al., 2014a). Thus, in this more integrative perspective, an organization must learn to address contradictory demands at the same time (Cameron, 1986). Hahn et al. (2015) build on the work of Poole and Van de Ven (1989) in the framework they propose to manage tensions in corporate sustainability. Their framework comprises two different

approaches: (a) *acceptance strategies* and (b) *resolution strategies* (see table 2)³.

INSERT TABLE 2 HERE

The acceptance strategy of *opposition* acknowledges the tensions between two sides of a paradox and tries to accommodate to this paradox by simultaneously pursuing both forces and juxtaposing contradictory propositions. The paradox persists as managers try to focus on both of its aspects. An example here is adjusting the firm's bonus structure and integrating short- and long-term financial and non-financial performance criteria with which managers must comply (Kolk and Perego, 2014). Here, the opposition strategy is applied to a paradox situation where tensions are acknowledged and the firm seeks ways to manage the long-term vs. the short-term around that paradox.

The resolution strategies of *spatial and temporal separation* aim to resolve the paradox by separating its opposing parts on different levels (e.g. individual and society), or along different time dimensions (e.g. present and future). The tensions are not eliminated; the process of simultaneously but separately addressing the competing forces is a continuous one, and the underlying tensions remain in place. In the temporal (time-based) separation method one element is assumed to hold during one time period and another in another time period (Poole and Van de Ven, 1989). For example, in employee-volunteering programs (Muthuri et al., 2009) organizational members can address environmental or social challenges without changing the organization's sustainability agenda but still fulfilling the needs of both parties. Spatial separation occurs when two sides of the paradox are separated in terms of location or analytical level (e.g. micro-macro; individual-organizational). For instance, top management team or CEO support for the long-term strategy of integrating sustainability creates urgency and visibility lower down the organization, and can lead to increased attention to sustainability (Hahn et al., 2015). This allows the full potential of the firm's strategy to be unleashed while maintaining the paradox intact with each of its elements addressed differently over space and time.

The last strategy of creating *synthesis* tries to deal with the paradox by creating a new perspective, and thus linking or accommodating the opposing forces of the paradox. Synthesis

³ In a paradox context, resolving does not mean permanent elimination of the tensions but rather "finding a means of meeting competing demands or considering divergent ideas simultaneously" (Smith and Lewis, 2011, p. 386). Managing or working through paradox is a continuous process which has to be re-evaluated creatively over time.

introduces new terms to resolve the paradox, and offers a frame that can accommodate the competing demands. Synthesis strategies require a more integrated approach in which the personal and organizational sustainability agendas of the individual and the organization are central. This can be achieved through the implementation of formal procedures, policies and systems, a distinctive organizational culture, or a governance structure which is more tolerant of the poles of the paradox (Hahn et al., 2015). New organizational forms such as hybrid organizations (Jay, 2013) or social enterprises (Doherty et al., 2014) are exemplars.

Empirically, it is not clear exactly which tensions are experienced by firms involved in business model innovations for sustainability, and which strategies they subsequently adopt to manage these tensions. The present study aims to provide insight into the sustainability tensions experienced by organizations in the transition towards a SBM, and to examine how they manage these tensions.

3 Methods

3.1 Research design

This study reveals how sustainability tensions are described, understood and dealt with by the individuals and firms trying to manage them in a SBM context. The overall aim is to provide insights into how paradoxical tensions are managed. An qualitative explorative approach that includes semi-structured interviews with corporate sustainability professionals is suited to investigating this nascent field of research (Bryman and Bell, 2007)⁴.

3.2 Research context, firm selection and data collection

This study focuses on the corporate sustainability practices of 30 firms across various industries in Northwest Europe (Germany, the Netherlands, Austria). This region has many similarities. It has a long history of corporate sustainability, for instance through widespread institutionalized sustainability reporting (KPMG, 2015), and initiatives around innovating with new SBMs. An important issue was how the sample firms were selected. To achieve the aims of the research, both the tensions (to be present and to be experienced) and activities to innovate towards more SBMs were needed.

To achieve the former condition a focus was placed on what might be considered ‘more

⁴ Van der Byl and Slawinski (2015) found only 8 articles that specifically address corporate sustainability paradoxes. To the author’s knowledge, there are no studies linking paradox theory to SBMs.

controversial' industries. That is, industries in which there is an inherent tension between the nature of the organization's core business and (some) principles of sustainability. Drawing on prior literature, oil companies and tobacco firms (Byrne, 2007; Du and Vieira Jr, 2012; Frynas, 2005) were identified. However, other industries such as financial services, (junk) food, apparel, transport and aviation, pharmaceuticals, and gambling whose business can be considered controversial can find it especially difficult compared to less controversial industries to establish a socially responsible model (Crane et al., 2014a; DeTienne and Lewis, 2005).

Next, pivotal to the study was to ensure that the selected firms were engaging with business model innovations for sustainability. As discussed, SBMs are extremely diverse, can be focused on various aspects (e.g. on the central product/service offering, customer relationships, chain partnerships etc.) and can range in scale. However, in this more explorative setting, the exact type of SBM favored by the firms was not vital. The important criterion was that the firms engaged with corporate sustainability, and in particular, with innovations that could be classified along one or more of the dimensions of the SBM (as discussed in the theoretical section), and recognized the need to manage the resulting tensions.

The preparatory work related to selecting the firms included reading relevant documents and archival records (e.g. industry reports, sustainability reports, annual reports, websites, media, etc.). Then firms were approached based on personal contacts, LinkedIn and then the snowball sampling technique based on interviewees' recommendations (Bryman and Bell, 2007). Initial conversations with prospective firms facilitated the decision to include them or not. Eventually, a group of firms with the characteristics needed for the study framing were identified, akin to theoretical sampling (Strauss and Corbin, 1998). Thus, transparency related to the tensions experienced in the firms included in the sample allows for good theoretical development, and offers an exemplary case since subject positions often were contested and were "transparently observable" (Eisenhardt, 1989, p. 537).

The empirical material was based on interviews with 30 respondents. The job titles of interviewees varied (e.g. CSR manager, sustainability officer, sustainability manager) but all had been responsible for their organizations' corporate sustainability programmes for several years. Table 3 provides an anonymized overview of the firms included. Interviews lasted between 30 and 60 minutes, and depending on interviewees' preferences and practical concerns, were conducted face-to-face or by telephone (see Appendix A for the interview guide). All interviews

were semi-structured to allow flexibility while ensuring consistent coverage of relevant themes. All respondents agreed to having the interviews tape-recorded and transcribed.

INSERT TABLE 3, 4, 5 & 6 HERE

3.3 Data analysis

Analysis of the empirical material took place in several phases, moving from coding of raw data to theoretical constructs (Gioia et al., 2013). First, open coding focused on the segments in which the firms discussed A) instances of ongoing and recurring tensions, and B) strategies to manage these. These tensions and strategies had to be related to the context of these firms engaging with business model innovations for sustainability (see e.g. Bocken et al., 2014; Osterwalder and Pigneur, 2010). Following Smith (2014), typically respondents described tensions using the terms “complex”, “problems”, “challenging”, “frustrating”, or simply “tensions”. and subsequently explained how they managed them.

In further analysis of the first-order codes and transcripts, axial coding identified more theoretically informed second-order themes categorizing the various types of tensions and strategies, drawing largely on labels used in the literature. That is, codes that included similarities or possible relations were grouped into a particular theme or category closely aligned to the literature. This step resulted in the identification of various theoretically informed types of tensions and strategies.

Finally, third-order aggregate dimensions were developed. It became apparent that firms tended to favor different strategies when faced with tensions. The distinction between the dimensions of more instrumental “business case” frames and the integrative “paradox” frames emerged as two main categories. Smith (2014, p. 1598) provides a good basis for strategy classification. The more integrative response strategies typically were described by interviewees’ using words such as “tensions,” “yet,” “but,” “balance,” “both/and” and “on the one hand/on the other hand”, whereas instrumental strategies were more often described as dilemmas, using language such as “trade-offs,” “choice,” “resolve,” and “either/or”. This made it possible to classify the various strategies along two main dimensions. It was possible also to identify for each firm which type of strategy was dominant, i.e. whether the firm was more inclined to pursue

instrumental or integrative reasoning and strategies⁵ (table 3). Table 4 provides the data structure, and tables 5 and 6 present the evidence for the tensions and strategies identified.

4 Results

In what follows, the main tensions experienced and the various strategies employed to manage these tensions are discussed. Interestingly, all the respondents acknowledged the existence of tensions which generally were similar in type (4.1). However, analysis of the strategies employed to manage these tensions show not only the existence of two types of approaches: a business-case focused instrumental approach, and a more paradox focused integrative approach (4.2), but also that firms adopting the latter approach find it easier to cope with SBMs challenges (4.3).

4.1 Tensions

While the respondents reported all the tensions discussed in the theory section (see table 5), performing, organizing and belonging tensions were the most frequent.

4.1.1 Performing tensions

Performing tensions manifest themselves in at least two ways. First, tensions around managing conflicting stakeholder demands and interests, a pivotal feature of any SBM (Matos and Silvestre, 2013), are visible. Conflicting demands exist between stakeholders within the firm: “A purchasing manager, the employees, the management, they all have other priorities and all have a different look on the world ... as a company we cannot focus too much on one stakeholder without getting in trouble with the other” (CSR manager⁶, transport firm). On the other hand, demands of external stakeholders are also a source of tensions. In the words of a sustainability manager in an apparel firm: “What NGO A asks of us is directly the opposite of what NGO B demands! To make matters worse, both demands are against shareholder interests! It is impossible to satisfy all stakeholders.”

Second, there are tensions around value creation, a vital aspect of any (sustainable)

⁵ Hahn et al. (2016) note also that no firm can be classified exclusively as either instrumental or integrative but typically combines both aspects, leaning towards one or other ends of the continuum. The analysis shows that typically firms show a disposition towards one or other frame. For greater clarity, in the analysis and the findings firms are classed as instrumental or integrative.

⁶ In this section the terminology and job titles used by respondents are maintained. Thus, unless otherwise stated, terms such as CSR, sustainability and corporate sustainability are used interchangeably.

business model (Bocken et al., 2014; Boons and Lüdeke-Freund, 2013). Firms struggle to walk the fine line among balancing environmental, social and financial performance criteria. Tellingly, a sustainability manager in a transport firm wondered “when are we actually sustainable, should we address all possible aspects, or rather focus on what makes a profit? These are tough questions”. As professed by the CSR manager of an energy firm: “I am directed to make turnover for our energy company but at the same time reduce CO₂ which contradicts each other and raises confusion”. Tensions emerge between maintaining acceptable levels of profit while simultaneously adding value to the social and environmental dimensions. Attitudes such as “sustainability is nice and important, but the bottom line still comes first” (CSR manager, retail) tended to persist.

4.1.2 Organizing tensions

A second type of tension surfaces around organizing for sustainability. First, a fundamental aspect of a SBM is showing “measurable ecological and/or social value in concert with economic value” (Bocken et al., 2014, p. 43) which makes the issue of organizing measurement important. That is, how to organize and structure the processes and strategies to allow measurement (using financial and non-financial measures) of the transition towards a more sustainable model is paying dividends for the firm and society? Again, stakeholders have different ideas about what defines successful performance which causes tensions. As a respondent from a financial services firm made clear about the difficulties with indicators: “Environmental progress we definitely measure, we have KPI’s for that, but when talking about community policies it is a lot harder to define KPI’s. We have no KPIs yet, we are still trying to figure that out”.

Second, organizing tensions became apparent in the examination of the positions of sustainability departments within the analyzed firms. It would seem intuitive that establishing a large sustainability department would show the firm’s commitment. On the other hand, since knowledge about sustainability within the SBM needs to flow through the organization (Osterwalder and Pigneur, 2010), having a separate department risks responsibility for sustainability being confined to that department rather than being an organization-wide responsibility: “We do not want a big CSR department ... sustainability is something from the whole organization and should be carried by the business itself”. In other words, “with a CSR

department organizations could see CSR as something separate”, whereas “CSR cannot be fixed to one department only. It is the job of every employee on his or her workplace”. One respondent argued that, “ideally the department becomes obsolete as this would show that sustainability has become business-as-usual”. Instead, firms may opt to decentralize sustainability expertise across various functional departments. At the same time, many firms would like to maintain a ‘center of sustainability excellence’ to pick up on new trends and development, offer assistance, and stimulate further progress. In short, tensions over the purpose and structural positions of sustainability departments within SBMs were evident.

4.1.3 Belonging/Identity tensions

Analysis of the data shows the existence of belonging or identity tensions, with competing demands of personal versus organizational interests. For instance, SBMs require changes to the firm’s culture and employees’ mindsets (Stubbs and Cocklin, 2008). However, this promotes tensions since some members of the organization are concerned about sustainability while others are more interested in financial performance. Sustainability managers usually understand the need for and applicability of sustainability but often the management tends to focus on the firm’s longevity: “They [management] have much more to look for. It remains paramount that the continuity of the firm is the most important”.

Moreover, moral and business interests can collide, for instance around firm-customer relationships, an important aspect of SBMs (Osterwalder and Pigneur, 2010). One interviewee working in the apparel industry found it difficult to come to terms with products being branded as ‘100% sustainable’: “I really have trouble in presenting a shirt as 100% organic while the painting process released a lot of chemicals. I am really struggling with myself about that”. Marketing a product as sustainable makes commercial sense but its production methods may not comply with everyone’s personal sustainability standards. This highlights tensions around maintaining moral standards and risking lower sales or increasing sales by copying (greenwashing) competitors but simultaneously falling short of the sustainability being claimed.

4.2 Strategies

Analysis of the empirical material shows a variety of strategies utilized to manage sustainability tensions (see table 6). These strategies generally fall into instrumental strategies

that suppress tensions, and integrative strategies that acknowledge and even embrace tensions.

4.2.1 Instrumental strategies

Firms pursuing an *alignment* strategy in their SBM activities focus on those social and environmental aspects with the potential to contribute to profitable business outcomes (e.g. marketing, reputation, risk avoidance). This is a particularly salient strategy in relation to performing tensions. When considering sustainability's many facets and its effect on the business model, a sustainability manager in an oil and gas company discussed the customer relationships element of his firm's business model, and argued that "through CSR we are able to support our image to the public. And if we fail to do so, the reputational damage is enormous". Another respondent claimed that "CSR is not only about doing good, its purpose is also to support the business strategy. And if the business does not see the value behind a CSR initiative, than it is possible that we have acceptance difficulties". Similarly, a respondent explained that when having to manage tensions around the firm's key activities "the firm is concerned with environmental targets and regulation such as energy and water targets in the factories and ISO 14001 for ISO management, and we apply rainforest alliance if the client asks for it but that is most of it". Overall, resolving the (performing) tension seems not to be a priority, and tensions persist as firms seek ways to accommodate to the situation while simultaneously pursuing sustainability initiatives and maintaining business-as-usual.

A second instrumental strategy is *avoidance*⁷, in which tensions are largely ignored or set aside. As one CSR manager claimed: "with CSR it will not be possible to gain the enormous profits like we used to have". This highlights how rather than searching for win-win (as an alignment strategy suggests) sustainability is seen as an expense since its value-creating potential is mostly ignored as managers believe that innovation in the SBM could have a negative impact on financial bottom lines. For instance, rather than viewing sustainability as an integral part of the firm's value proposition, one interviewee argued that it tried to make its business model more sustainable by "donating a percentage of our profits to charitable organizations". In fact, a win-

⁷ When pressed to explain how tensions were dealt with in relation to sustainability and the business model, avoidance strategies were far less frequent compared to an alignment strategy. This may be due to the more positive framing of the latter and the more prominent position in the management discourse of its win-win outcome (e.g. Porter and Kramer's influential shared value).

lose trade-off situation guides how to cope with sustainability tensions: “we seek to make our business model more sustainable, but there is only so much we can afford to do. It is about the bonus vs the charity donation, or the bottom line vs. the community project” (sustainability manager, retail).

4.2.2 Integrative strategies

Managers following *opposition* strategies seek to consider contradictory aspects simultaneously but do not emphasize a particular pole of the tension as the better way (Hahn et al., 2015). A salient issue often addressed by an opposition strategy is how to get employees committed to engaging with innovations of their SBMs. Respondents indicated that they innovate through the offer of remuneration packages to address the various relevant tensions. That is, they combine financial and non-financial performance criteria to try to nudge employees toward contributing to a more sustainable model. For example, in order to enhance employee-engagement one respondent explained that full employee bonuses were achievable only if a certain percentage of the annual objectives could be linked to innovations aimed to improve business model sustainability: “we target a broad basis of employees, yet let them decide on their own to which topic they are dedicating themselves to”.

Second, firms can be reluctant to change their business models radically. Instead, they prefer a “twin-track” approach. That is, they persist with their more traditional and not necessarily sustainability product and service offerings while simultaneously introducing sustainability business model innovations, for instance working on circular or cradle-2-cradle products, collaborative forms of organizing, and product service systems. As a sustainability officer in an oil and gas firm explained: “We cannot change our business model just like that, it is commercial suicide! What we can do is experiment with new, and more sustainable, ways of doing business while maintaining commercial viability. We basically seek to achieve a revolution through evolution”.

Finally, through more informal participative initiatives which acknowledge divergent agendas, identity tensions (in particular organizational interests vs personal interests) that accompany business model innovations are addressed. For instance, ‘green-teams’ may be created whose individual team members can initiate sustainability projects both within or outside the organization. A firm operating in the oil and gas industry facilitates both administrative and

operational employees' interaction and suggestions about making the business model more sustainable, since "ultimately those are the people on-site who see where we waste our energy in core processes. It is essentially more effective to let them bring the ideas than having someone in the head office who calculates something on the paper and then prescribes the business that they have to execute it". Such projects and initiatives typically are not part of the organizational structure (as would apply to a separation strategy), but rather represent "an informal network of employees which are working together" (CSR manager, gambling firm).

Overall, an opposition strategy allows the emergence of an official and a non-official sustainability agenda. The paradoxical tension remains in place, but the juxtapositioning of a divergent personal and organizational agenda can satisfy both the organization and its members (Hahn et al., 2015).

Second, temporal and in particular, spatial *separation* strategies were identified. To address the identity and temporal tensions temporal pockets are created that allow employees to pursue their personal sustainability agendas alongside the organization's objectives (Hahn et al., 2015, p. 305). These temporal pockets include formalized employee-volunteering programs (e.g. teaching in schools, workshops, volunteering sabbaticals) implemented by the organization. The firm sponsors the employees' community involvement by providing additional resources: "We try to stimulate our employees by proposing an employee volunteering program to teach financial lessons at schools as this suits our business". Similarly, another manager explained that "those that conduct voluntary work in their free time will get compensated in working time, it does not have to be related to the business". Overall, the objectives at both ends of the paradox continuum are addressed (e.g. employees feel fulfilled and bring new skills and motivations to the workplace) while the underlying tensions remain.

Spatial separation among firms manifests itself in various ways. First, it applies to the issue of where and to whom in the organization to assign responsibility for SBM innovations. Particularly important in the context of performing and organizing tensions, long-term responsibility for business model changes are typically the responsibility of top management as "in terms of strategy and to make sure that everyone in the company is on the same page and working in the same direction you need top management". Thus, top management champions sustainability as pivotal, middle managers maintain room for maneuver and a mixture of top-

down and bottom-up initiatives emerges. Paradoxically, by separating the responsibilities the firm can work more positively towards a SBM as according to the CSR manager of a retail firm “the top management values sustainability a lot and thus CSR is well supported by the managing board, we report directly to the CEO and CFO”. This is alluded to by Hahn et al. (2016, p. 224) who state that this separation makes it possible to “maintain different activities that address inconsistent demands. Structural independence of these units ensures that managers are not overwhelmed by competing tasks”.

Second, setting up a sustainability department, or allocating responsibility to a specific department, is a more contentious form of spatial separation. Some managers regard this as a useful knowledge center that coordinates and manages the firm’s attempts to achieve a SBM. For instance, “CSR should be coordinated from the communications department of an organization” (CSR manager, aviation). However, this form of separation is criticized as it can hamper stakeholder inclusion and does not create a more integrally shared responsibility, commitment and knowledge base. Instead, to move toward a SBM requires “close collaboration between all the involved departments”. In the words of one interviewee: “I am the sustainability manager, we have a sustainability officer in another team, we have one responsible for sustainable purchasing, another for sustainable reporting, so it is very decentralized, and that is also our conviction, we do not want a separate club to work on CSR”.

A final strategy that firms pursuing business model changes employ is the *synthesis* strategy. This means that the firm accommodates the opposing aspects of a tension by creating an overarching logic or frame. Tensions are addressed by integrating sustainability innovations in every organizational aspect and its value chain. For instance, a textile firm experimented with biological cleaning and circular production and argued that “the crux is that when we introduce circular production next year we can do so against the same costs as a firm that pays lower wages because disadvantage A is outweighed by advantage B”. Moreover, firms can consolidate their business model innovations by changing external expectations. That is, conventional wisdom is challenged, and tensions are accentuated rather than silenced. Within the fashion industry, this becomes apparent when firms develop models that question the logic of mass-produced, fast fashion and constant sales: “I try to cut myself loose from [...] fast fashion and producing multiple collections a year to be able to compete with the mad game that is created”.

Other firms create alternative corporate governance structures and policies, and thereby work through both performance and temporal tensions. Firms set up long-term targets, are more forgiving when failing to meet short-term financial objectives, and embed their sustainability focus in their mission and strategy: “Sustainability is part of our 6 key strategy pillars, we believe that it is very important to our business” (CSR manager, food industry). Pivotal here is that the firm through its policies, strategies and mission pays “attention that the activities we pursue are on the one hand providing an added value for our company and on the other hand for the society and the environment” (sustainability manager, financial services). An interesting example is when the firm introduces sustainability aspects and criteria in the recruitment process, thereby addressing identity tensions since such an approach will allow a better match between personal and organizational interests in the business model. Other firms may introduce empowering collaborative multi-stakeholder structures to set goals and objectives, as explained by the CEO of a food retailer: “We choose to integrate stakeholder management in our strategy and let stakeholders truly participate in the financial and non-financial objectives of our projects”.

In summary, a synthesis strategy means that sustainability becomes “the job of every employee in his or her workplace” (CSR manager, gambling). Creating sustainable value is prioritized as essential, and the idea takes hold that “sustainability cannot be executed at the expense of the business and vice versa” (sustainability manager, fashion). Both sides of a paradoxical tension need to go hand in hand in order to generate sustainable profit for the organization and society.

4.3 Firms and instrumental vs integrative strategies

Whereas the firms all experienced similar tensions, they rely on a range of strategies. The analysis shows that 17 firms tend towards an instrumental strategy while 13 firms predominantly follow integrative strategies, albeit typically in combination with alignment and/or avoidance strategies (see table 3). More importantly though, a difference in how firms perceive and make sense of business model innovations for sustainability is apparent between these two groups.

On the one hand, firms that seek to advance a SBM by instrumentally seeking win-win opportunities and trade-offs typically perceive sustainability’s tensions as constraining and almost unsolvable Gordian knots: “the problem with sustainability and making our business model more sustainable is that there are simply too many elements to consider. Worse, these

elements often even contradict each other!” (CSR manager, food and beverages). Furthermore, although the logic of the business case is persuasive, it also restricts the advancements of firms. As a retail CSR managers explains: “It is not that we do not want to make our business model more sustainable, yet there has to be a business case, because otherwise it simply will not happen. This is a limitation”. Overall, a sentiment shared among many firms pursuing an instrumental approach is conveyed by a respondent from a beverage company: “all of us here try our very best, yet we remain unsure what a sustainable business model exactly means in practice and how it should look. Frankly, I sometimes doubt sustainable business models are even possible ...”.

On the other hand, firms drawing on integrative strategies indicate they find it easier to cope with, and make sense of, the tensions around SBM innovations⁸. For instance, one sustainability officer when considering the performance tension said: “That is nonsense, sustainability is not expensive. It is just a part of your business. The costs go before the revenues. [...] There does not need to be a battle between price and sustainability”. Similarly, a firm from the garment sector did not recognize the identity tension perceived by counterparts: “There are places in Bangladesh where 100,000 children work in large factories where they hardly see any daylight. They work every day of the week for 50 euros a month. It is impossible to compete with these kinds of suppliers. We also do not want to. You need to draw a line and take a step back”. Furthermore, firms adopting an integrative approach realize tensions are perpetual and never permanently solved, yet can be (temporarily) managed (see also Smith and Lewis, 2011 and figure 1 below). As one informant explained: “You will constantly meet those challenges. It is not a plan in which you start at A and end at Z. No, you will manage to get from A to Z, but you will see new challenges after that”. In summary, firms following an integrative frame embrace the tensions and do not view them so much as constraining or inherently problematic. As one interviewee from the aviation sector argued tellingly: “You call it a contradiction, I call it a healthy tension”.

5 Discussion

The goal of this study was to provide insights into the tensions faced by firms working on

⁸ Whether these firms also perform objectively better from a sustainability and/or financial perspective stands to reason, yet is beyond the scope of this research and would require a separate study – a useful direction for future research, see also Evans et al. (2017). In the present research the focus is more on the firms’ perception of how they were managing the firm and its sustainability challenges. No significant differences related to firms’ country of origin or industry were found.

business model innovations for sustainability, and how to manage them⁹. Based on the results of interviews with the sustainability managers from 30 firms, the data show a variety of tensions, and support the theoretical proposition that firms drawing on paradoxical or integrative strategies find it easier to make sense of a SBM than firms that draw on an instrumental or ‘business case’ logic. Primarily, these results have implications for the SBM literature by highlighting how paradoxical thinking can help to handle complexity by reducing tensions, ambiguity and uncertainty. Secondly, the study has implications for the literature on a paradox approach to corporate sustainability by adding to the scarce empirical studies of the different sustainability tensions experienced, and the strategies employed to manage these tensions.

5.1 Theoretical implications

First, this study builds on and extends prior work on SBMs. While previous work shows that new business models are required to achieve sustainability (Lovins et al., 1999; Stubbs and Cocklin, 2008), how this is achieved is less clear (e.g. Evans et al., 2017). The current analysis affirms that sustainable business models are complex and contain various tensions. We know from the literature that complexity and tensions can fuel “both challenges and opportunities” (Smith and Tracey, 2016, p. 459). Firms drawing predominantly on instrumental strategies arguably stipulate the challenges since they feel hampered by and find it difficult to make sense of SBM tensions. On the other hand, accepting the myriad of these tensions as an opportunity, and following an integrative approach by working through the tensions may be a more effective route. Based on the explorative analysis in this study, a conceptual model for managing tensions around SBMs can be proposed (figure 1).

INSERT FIGURE 1 HERE

This model suggests that although drawing on integrative ‘paradoxical’ thinking rather than solely pursuing instrumental strategies may be complex and challenging, it offers the opportunity to promote so-called ‘virtuous’ rather than ‘vicious’ cycles (Smith and Tracey, 2016; Sundaramurthy and Lewis, 2003). That is, the success of business model innovations for sustainability depends on the organization’s ability to manage conflicting economic,

⁹ As explained earlier, this study does not focus on a specific SBM but rather examines how firms identified as pursuing SBM innovation manage the inherent tensions.

environmental and social aspects. Although tensions are never entirely eliminated as working through them is a continuous process (Smith and Lewis, 2011), embracing the tensions and contradictions appears to facilitate creation of workable certainties or virtuous cycles. On the other hand, stipulating a business case of sustainability (Schaltegger et al., 2012) through an instrumental strategy risks persisting anxiety and uncertainty, or a vicious cycle as “individuals react defensively to contradictory demands, split alternatives and choose between them” (Fairhurst et al., 2016, p. 176), and detrimental conflict between the poles of a paradox persist. This result resonates with Slawinski and Bansal’s (2015, p. 546) study of intertemporal tensions among Alberta’s oil sands firms, and their argument that:

if businesses continue to approach sustainability issues from a technocentric paradigm in which they seek to commensurate sustainability issues with economic issues, they reduce the attributes of the issues and take a narrow approach to finding a solution; as a result, companies will not address the fundamental challenges of sustainability. Instead, if the many tensions surrounding sustainability are juxtaposed and treated as a paradox, then alignment between business goals and societal needs will more likely emerge in the long run.

This study’s finding can be explained by looking at prior work which maintains that adopting a paradoxical mindset offers “new and more enabling understandings of contradictory managerial demands and ubiquitous tensions” (Lüscher and Lewis, 2008, p. 239). That is, acknowledging paradoxes may not render the reality less complex for organizations but “working through paradox could help them enact a more workable certainty—a negotiated understanding, sometimes even more complex than the former understanding, but eventually more meaningful and actionable” (Lüscher and Lewis, 2008, p. 235). Thus, paradoxical thinking “creates a sense of conflict in individuals and enhances their ability to integrate contradictions, which in turn increases creativity” (Miron-Spektor et al., 2011, p. 229), and can positively affect long-term success (Lewis, 2000). Paradoxically, SBMs may require organizations to apply inconsistent management strategies consistently (Smith and Lewis, 2011), allowing them to attend to contradictory demands simultaneously.

However, and on a more cautious and critical note, while firms may claim to be pursuing a SBM, the majority in this study sample continued to pursue more instrumental ‘win-win’

strategies. While there is nothing that is fundamentally opposed to this, the effectiveness of this strategy in terms of SBM aims to improve economic, social and environmental performance are questioned. This recalls Schaltegger et al.'s (2012) work on the business case which distinguishes between the business case *of* sustainability (i.e. creating economic value while performing on environmental and social issues), and the preferred business case *for* sustainability (i.e. creating economic value through environmental or social measures). The latter requires a SBM that is “actively managed in order to create customer and social value by integrating social, environmental, and business activities” (Schaltegger et al., 2012, p. 112), i.e. more akin an integrative approach. This simultaneous pursuit of economic prosperity, social justice and environmental integrity is important since for firms in today's world, it is increasingly “a key dimension of legitimacy” (Scherer et al., 2013, p. 278). Obviously, firms failing to live up to their promises to pursue a SBM open the door to accusations of corporate hypocrisy, erecting smokescreens and supporting business-as-usual rather than promoting true systemic change (Fleming and Jones, 2012).

Secondly, this study has implications for the emerging literature on corporate sustainability drawing on a paradox perspective (Hahn et al., 2018, 2015; Scherer et al., 2013; Van der Byl and Slawinski, 2015). While most of this work is conceptual, the current paper offers an in-depth empirical analysis. This analysis not only demonstrates multiple performing, organizing, belonging and to a lesser extent, learning tensions, it also confirms the presence of both instrumental and integrative managing strategies. Moreover, the study finds variations in the perceived outcomes from pursuing these two strategies. While this is a welcome general addition to an emerging field of research with a relative dearth of empirical studies, this research adds specifically to extant work by shedding light on whether firms see strategies to manage tensions as interrelated or regard them as distinctive.

Earlier research asks whether 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” (Hahn et al., 2015, p. 312). The present study answers affirmatively. That is, as table 3 and the dotted line in figure 1 show clearly, firms operating from an integrative perspective not only rely on a combination of opposition, separation and synthesis strategies, they do so typically while simultaneously

applying instrumental strategies. Vice versa, firms working predominantly with an instrumental repertoire also draw on integrative strategies, albeit to a very limited extent.

To account for this finding, it appears that rather than seeking a ‘one best way’ or a ‘contingency’ approach (see Scherer et al., 2013), firms flexibly and pragmatically draw on a range of strategies while remaining predominantly predisposed to an instrumental or integrative approach. It is reasonable to assume that exactly because of the complexity and dynamism of sustainability, this heterogeneous mix of responses to manage tensions can be very effective. However, for this approach to succeed requires managers working on issues around corporate sustainability to be versatile. This highlights the importance of developing a constitutive culture, internal environment and a leadership approach that allows employees to think critically and to make judgements about appropriate sustainability actions (Scherer et al., 2013).

5.2 Practical implications

So far, the search for instrumental win-win scenarios has dominated firms’ SBMs. However, this study suggests that adopting a more integrative ‘paradoxical mindset’ can help practitioners working on corporate sustainability to achieve creative and long-term sustainable solutions. However, this calls for leadership that embraces complexity and change, and “that can make dynamic decisions, build commitment to both overarching visions and agenda specific goals, learn actively at multiple levels, and engage conflict” (Smith et al., 2010, p. 448). This requires not just leadership from the top but also translation lower down the hierarchy, and structural and cultural changes and a better appreciation, understanding and acceptance of tensions throughout the organization (Lewis et al., 2014). Undoubtedly, this is challenging but when executed well paradoxical thinking can be a powerful strategy to allow practitioners a better understanding of the complex reality, and to work creatively towards their SBMs.

5.3 Limitations and future research

Despite its contributions, this study has some limitations. First, we do not know the extent to which the paradoxical tensions and strategies that emerge from this study can be applied more generally. Future research should look, for instance, at the question of how the various strategies of working through tensions can best be utilized and how the “purposeful iterations” (Smith and Lewis, 2011, p. 392) between instrumental and integrative strategies discussed above take shape. This requires a deeper understanding of the nature of these tensions and strategies, the conditions

under which each strategy might emerge, the factors that enable each to be successful, whether particular constellations of strategies are more or less effective than others under various circumstances and the question whether some strategies match particularly well with specific tensions.

Second, the results are drawn from qualitative interview data, and the issue of SBM impact and effectiveness needs further (quantitative) analysis to examine the financial and sustainability value creation of firms employing either instrumental or integrative strategies (see also Evans et al., 2017). Also, more work is needed on how organizations can change their approach. Conducting longitudinal- or action research to analyze how organizations aim to change their strategies and the underlying mechanisms would be fruitful. Since at times CSR professionals can be more focused on either social responsibility or environmental responsibility, it would be helpful to consider either a strict separation or explicit combination (as in the case examined here) of the two.

Third, this study did not investigate specific SBMs but applied a more broad-brush approach. While this was justifiable theoretically and methodically, future studies could look at more fine-grained specific types of SBMs, and how a paradox lens can help the development of for instance, hybrids, social enterprises and B-corporations. Paradoxical tensions are treated differently in different contexts and cultures (Schad et al., 2016). The dominant tensions and the strategies employed to manage them potentially might be different in these different types of SBMs and in different contexts.

6 Conclusion

To conclude, this study set out to examine empirically the tensions around business model innovations for sustainability and the strategies that organizations employ to manage these tensions. The results suggest that firms working on SBMs face multiple tensions but firms that handle these tensions by employing paradoxical integrative strategies find it easier to advance their SBMs than those firms that draw on instrumental strategies. While the tensions may never be entirely resolved (Fairhurst et al., 2016), and managing sustainability's tensions is challenging, acknowledging and embracing them makes it possible to work through them to the firm's advantage rather than to its detriment. This 'both/and' type of thinking that defines organizations adopting an integrative approach creates a "workable certainty" (Lüscher and Lewis, 2008) that is constitutive of virtuous cycles in which organizations ask "How can we implement both A and

B?, and this shift in strategic focus enables the emergence of new business models to build towards greater long-term organizational success” (Smith et al., 2010, p. 457). Or, as Danish physicist Niels Bohr once happily proclaimed, “How wonderful that we have met with a paradox. Now we have some hope of making progress.”

Acknowledgments

The author would like to thank the anonymous reviewers for their helpful feedback, as well as the editors of this special volume for their guidance. A special thanks to the project’s research assistants for their valuable contributions.

References

- Aguinis, H., Glavas, A., 2012. What we know and don’t know about corporate social responsibility a review and research agenda. *J. Manag.* 38, 932–968.
- Anttonen, M., Halme, M., Houtbeckers, E., Nurkka, J., 2013. The other side of sustainable innovation: is there a demand for innovative services? *J. Clean. Prod.* 45, 89–103.
- Bansal, P., 2002. The corporate challenges of sustainable development. *Acad. Manag. Exec.* 1993 16, 122–131.
- 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. *Strateg. Manag. J.* 33, 1304–1320.
- Berger, I.E., Cunningham, P., Drumwright, M., 2007. Mainstreaming corporate social responsibility: Developing markets for virtue. *Calif. Manage. Rev.* 49, 132–157.
- Bocken, N.M.P., Short, S.W., Rana, P., Evans, S., 2014. A literature and practice review to develop sustainable business model archetypes. *J. Clean. Prod.* 65, 42–56.
- Boons, F., Lüdeke-Freund, F., 2013. Business models for sustainable innovation: state-of-the-art and steps towards a research agenda. *J. Clean. Prod.* 45, 9–19.
- Boons, F., Mendoza, A., 2010. Constructing sustainable palm oil: how actors define sustainability. *J. Clean. Prod.* 18, 1686–1695.
- Boons, F., Montalvo, C., Quist, J., Wagner, M., 2013. Sustainable innovation, business models and economic performance: an overview. *J. Clean. Prod.* 45, 1–8.
- Bryman, A., Bell, E., 2007. *Business research methods*, 2nd edition. ed. Oxford University Press, Oxford.
- Byrne, E.F., 2007. Assessing arms makers’ corporate social responsibility. *J. Bus. Ethics* 74, 201–217.
- Cameron, K.S., 1986. Effectiveness as paradox: Consensus and conflict in conceptions of organizational effectiveness. *Manag. Sci.* 32, 539–553.
- Crane, A., Matten, D., Spence, L., 2014a. *Corporate Social Responsibility. Readings and cases in a global context.* (2nd ed.). Routledge, New York.
- Crane, A., Palazzo, G., Spence, L.J., Matten, D., 2014b. Contesting the value of “creating shared value.” *Calif. Manage. Rev.* 56, 130–153.
- DeTienne, K.B., Lewis, L.W., 2005. The pragmatic and ethical barriers to corporate social responsibility disclosure: The Nike case. *J. Bus. Ethics* 60, 359–376.
- Doherty, B., Haugh, H., Lyon, F., 2014. Social enterprises as hybrid organizations: A review and research agenda. *Int. J. Manag. Rev.* 16, 417–436.
- Du, S., Vieira Jr, E.T., 2012. Striving for legitimacy through corporate social responsibility: Insights from oil companies. *J. Bus. Ethics* 110, 413–427.
- Eisenhardt, K., 1989. Building Theories from Case Study Research. *Acad. Manage. Rev.* 14, 532–550.
- Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E.A., Barlow, C.Y., 2017. Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models. *Bus. Strategy Environ.* 26, 597–608.
- Fairhurst, G.T., Smith, W.K., Banghart, S.G., Lewis, M.W., Putnam, L.L., Raisch, S., Schad, J., 2016. Diverging and Converging: Integrative Insights on a Paradox Meta-perspective. *Acad. Manag. Ann.* 10, 173–182.

- Fleming, P., Jones, M.T., 2012. *The end of corporate social responsibility: Crisis and critique*. Sage, London.
- Frynas, J.G., 2005. The false developmental promise of corporate social responsibility: Evidence from multinational oil companies. *Int. Aff.* 81, 581–598.
- Gao, J., Bansal, P., 2013. Instrumental and integrative logics in business sustainability. *J. Bus. Ethics* 112, 241–255.
- Gioia, D.A., Corley, K.G., Hamilton, A.L., 2013. Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organ. Res. Methods* 16, 15–31.
- Hahn, T., Figge, F., Pinkse, J., Preuss, L., 2018. A paradox perspective on corporate sustainability: Descriptive, instrumental, and normative aspects. *J. Bus. Ethics* 148, 235–248.
- Hahn, T., Figge, F., Pinkse, J., Preuss, L., 2010. Trade-offs in corporate sustainability: you can't have your cake and eat it. *Bus. Strategy Environ.* 19, 217–229.
- Hahn, T., Pinkse, J., Preuss, L., Figge, F., 2016. Ambidexterity for corporate social performance. *Organ. Stud.* 37, 213–235.
- Hahn, T., Pinkse, J., Preuss, L., Figge, F., 2015. Tensions in corporate sustainability: Towards an integrative framework. *J. Bus. Ethics* 127, 297–316.
- Hahn, T., Preuss, L., Pinkse, J., Figge, F., 2014. Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Acad. Manage. Rev.* 39, 463–487.
- Haigh, N., Walker, J., Bacq, S., Kickul, J., 2015. Hybrid organizations: origins, strategies, impacts, and implications. *Calif. Manage. Rev.* 57, 5–12.
- Jay, J., 2013. Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Acad. Manage. J.* 56, 137–159.
- Kolk, A., Perego, P., 2014. Sustainable bonuses: Sign of corporate responsibility or window dressing? *J. Bus. Ethics* 119, 1–15.
- KPMG, 2015. *KPMG Survey of Corporate Responsibility Reporting 2015*. Amsterdam.
- Lewis, M.W., 2000. Exploring paradox: Toward a more comprehensive guide. *Acad. Manage. Rev.* 25, 760–776.
- Lewis, M.W., Andriopoulos, C., Smith, W.K., 2014. Paradoxical leadership to enable strategic agility. *Calif. Manage. Rev.* 56, 58–77.
- Loorbach, D., Wijsman, K., 2013. Business transition management: exploring a new role for business in sustainability transitions. *J. Clean. Prod.* 45, 20–28.
- Lovins, A.B., Lovins, L.H., Hawken, P., 1999. A road map for natural capitalism. *Harv. Bus. Rev.* 77, 145–158.
- Lüscher, L.S., Lewis, M.W., 2008. Organizational change and managerial sensemaking: Working through paradox. *Acad. Manage. J.* 51, 221–240.
- Manninen, K., Koskela, S., Antikainen, R., Bocken, N.M.P., Dahlbo, H., Aminoff, A., 2018. Do circular economy business models capture intended environmental value propositions? *J. Clean. Prod.* 171, 413–422.
- Margolis, J.D., Walsh, J.P., 2003. Misery loves companies: Rethinking social initiatives by business. *Adm. Sci. Q.* 48, 268–305.
- Matos, S., Silvestre, B.S., 2013. Managing stakeholder relations when developing sustainable business models: the case of the Brazilian energy sector. *J. Clean. Prod.* 45, 61–73.
- Miron-Spektor, E., Gino, F., Argote, L., 2011. Paradoxical frames and creative sparks: Enhancing individual creativity through conflict and integration. *Organ. Behav. Hum. Decis. Process.* 116, 229–240.
- Muthuri, J.N., Matten, D., Moon, J., 2009. Employee volunteering and social capital: Contributions to corporate social responsibility. *Br. J. Manag.* 20, 75–89.
- Orlitzky, M., Schmidt, F.L., Rynes, S.L., 2003. Corporate social and financial performance: A meta-analysis. *Organ. Stud.* 24, 403.
- Osterwalder, A., Pigneur, Y., 2010. *Business model generation: a handbook for visionaries, game changers, and challengers*. John Wiley & Sons, Hoboken.
- Poole, M.S., Van de Ven, A., 1989. Using paradox to build management and organization theories. *Acad. Manage. Rev.* 14, 562–578.
- Prendeville, S.M., O'Connor, F., Bocken, N.M.P., Bakker, C., 2017. Uncovering ecodesign dilemmas: A path to business model innovation. *J. Clean. Prod.* 143, 1327–1339.
- Rauter, R., Jonker, J., Baumgartner, R., 2017. Going one's own way: drivers in developing business models for sustainability. *J. Clean. Prod.* 140, 144–154.
- Richardson, J., 2008. The business model: an integrative framework for strategy execution. *Strateg. Change* 17, 133–144.
- Roome, N., Louche, C., 2016. *Journeying Toward Business Models for Sustainability A Conceptual Model Found Inside the Black Box of Organisational Transformation*. *Organ. Environ.* 29, 11–35.
- Schad, J., Lewis, M.W., Raisch, S., Smith, W.K., 2016. Paradox research in management science: Looking back to

- move forward. *Acad. Manag. Ann.* 10, 5–64.
- Schaltegger, S., Hansen, E.G., Lüdeke-Freund, F., 2016. Business Models for Sustainability Origins, Present Research, and Future Avenues. *Organ. Environ.* 29, 3–10.
- Schaltegger, S., Lüdeke-Freund, F., Hansen, E.G., 2012. Business cases for sustainability: the role of business model innovation for corporate sustainability. *Int. J. Innov. Sustain. Dev.* 6, 95–119.
- Scherer, A.G., Palazzo, G., Seidl, D., 2013. Managing legitimacy in complex and heterogeneous environments: sustainable development in a globalized world. *J. Manag. Stud.* 50, 259–284.
- Slawinski, N., Bansal, P., 2015. Short on Time: Intertemporal Tensions in Business Sustainability. *Organ. Sci.* 26, 531–549.
- Smith, W.K., 2014. Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Acad. Manage. J.* 57, 1592–1623.
- Smith, W.K., Binns, A., Tushman, M.L., 2010. Complex business models: Managing strategic paradoxes simultaneously. *Long Range Plann.* 43, 448–461.
- Smith, W.K., Gonin, M., Besharov, M.L., 2013. Managing Social-Business Tensions: A Review and Research Agenda for Social Enterprise. *Bus. Ethics Q.* 23, 407–442.
- Smith, W.K., Lewis, M.W., 2011. Toward a theory of paradox: A dynamic equilibrium model of organizing. *Acad. Manage. Rev.* 36, 381–403.
- Smith, W.K., Tracey, P., 2016. Institutional complexity and paradox theory: Complementarities of competing demands. *Strateg. Organ.* 14, 455–466.
- Strauss, A.L., Corbin, J., 1998. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage, Thousand Oaks.
- Stubbs, W., Cocklin, C., 2008. Conceptualizing a “sustainability business model.” *Organ. Environ.* 21, 103–127.
- Sundaramurthy, C., Lewis, M., 2003. Control and collaboration: Paradoxes of governance. *Acad. Manage. Rev.* 28, 397–415.
- Teece, D.J., 2010. Business models, business strategy and innovation. *Long Range Plann.* 43, 172–194.
- Tukker, A., 2004. Eight types of product–service system: eight ways to sustainability? Experiences from SusProNet. *Bus. Strategy Environ.* 13, 246–260.
- Van der Byl, C., Slawinski, N., 2015. Embracing tensions in corporate sustainability A review of research from win-wins and trade-offs to paradoxes and beyond. *Organ. Environ.* 28, 54–79.
- Wells, P., 2016. Economies of Scale Versus Small Is Beautiful A Business Model Approach Based on Architecture, Principles and Components in the Beer Industry. *Organ. Environ.* 29, 36–52.
- Wells, P., Seitz, M., 2005. Business models and closed-loop supply chains: a typology. *Supply Chain Manag. Int. J.* 10, 249–251.

Appendix A - Interview protocol

| |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Introduction to the research project |
| 2. What does corporate sustainability mean for your organization? |
| 3. Which measures (initiatives, strategies, policies etc.) are taken by the organization towards it? |
| 4. What is your understanding of a SBM (in case unclear explain)? How does it relate to corporate sustainability? |
| 5. Considering the corporate sustainability initiatives of your firm, how does it contribute to business model innovations for sustainability? |
| 6. While engaging with corporate sustainability, do you experience any challenges or tensions? |
| 7. What are these tensions? |
| 8. How do you manage these tensions and why in this way? |
| 9. What is the effect of this approach on these tensions? |
| 10. What are the outcomes of your approach on the management of sustainability within the firm? |

Table 1 Paradoxical tensions around sustainability

| Tension | Description | Examples |
|--------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performing | Tensions emerging from multiplicity of stakeholders and goals | <ul style="list-style-type: none"> - Bottom line: financial bottom line vs. triple bottom line - Organizational focus: broad array of sustainability objectives vs. only profitable sustainability objectives |
| Belonging/Identity | Tensions emerging from individual and collective conflicts around identity and values | <ul style="list-style-type: none"> - Mission: focus on sustainability logic vs business logic - Organizational identity: homogeneous identities and values vs competing identities and values |
| Organizing | Tensions emerging from internal dynamics (culture, structure, leadership) | <ul style="list-style-type: none"> - Recruitment: focus on sustainability skills vs. business skills - Organizing sustainability: separate sustainability department vs. integrating into core operations |
| Learning/Temporal | Tensions emerging from multiple time horizons as growth, change and flexibility are pursued. | <ul style="list-style-type: none"> - Timing: short-term business focus vs. long-term sustainability focus - Change: revolutionary change or evolutionary change towards sustainability |

Table 2 Strategies for managing paradoxical tensions

| Strategies | | Examples |
|-----------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suppression (instrumental) | Alignment | <ul style="list-style-type: none"> - Green energy to save costs and enhance reputation - Adhering to sustainability standards to satisfy client demands |
| | Avoidance | <ul style="list-style-type: none"> - Seeking trade-offs between economic and environmental concerns - Seeking trade-offs between economic and social concerns |
| Acceptance (integrative) | Opposition | <ul style="list-style-type: none"> - Long-term and short-term focus in bonus system - Novel/sustainable product lines combined with traditional ones |
| Resolution (integrative) | Spatial Separation | <ul style="list-style-type: none"> - Separating focus of CSR departments and other departments - Separating focus on goals and strategy of organization along organizational hierarchy |
| | Temporal Separation | <ul style="list-style-type: none"> - Sabbaticals for pursuing personal sustainability agenda - Employee volunteering programs |
| | Synthesis | <ul style="list-style-type: none"> - Setting up supporting policies, structures, cultures for integration - Creating hybrid organizations |

Table 3 Overview of firms and dominating strategies

| Firm | Characteristics | | Predominant strategies used | | | | | | Dominant orientation |
|------|--------------------|---------|-----------------------------|-----------|------------|--------------------|---------------------|-----------|----------------------------|
| | Industry | Country | Avoidance | Alignment | Opposition | Spatial Separation | Temporal Separation | Synthesis | Instrumental / Integrative |
| 1 | Apparel | GER | x | x | x | | | | Instrumental |
| 2 | Apparel | GER | | x | x | x | | x | Integrative |
| 3 | Apparel | NL | | x | x | x | x | x | Integrative |
| 4 | Apparel | NL | x | x | x | | | | Instrumental |
| 5 | Apparel | NL | x | x | | | | | Instrumental |
| 6 | Financial services | GER | | x | x | | x | x | Integrative |
| 7 | Financial services | GER | | x | x | x | | x | Integrative |
| 8 | Financial services | NL | x | x | | | | | Instrumental |
| 9 | Food and beverage | AT | | x | x | x | x | x | Integrative |
| 10 | Food and beverage | AT | x | x | | | | | Instrumental |
| 11 | Food and beverage | GER | x | x | x | | | | Instrumental |
| 12 | Food and beverage | GER | x | x | | x | | | Instrumental |
| 13 | Food and beverage | NL | | x | x | x | | x | Integrative |
| 14 | Food and beverage | NL | | x | x | x | x | x | Integrative |
| 15 | Gambling | AT | x | x | | | | | Instrumental |
| 16 | Gambling | AT | | x | x | x | | x | Integrative |
| 17 | Oil and gas | AT | | x | x | x | x | | Integrative |
| 18 | Oil and gas | AT | x | x | | | | | Instrumental |
| 19 | Oil and gas | NL | | x | x | x | x | | Integrative |
| 20 | Pharmaceuticals | AT | | x | | | | | Instrumental |
| 21 | Retail | GER | x | x | | | | | Instrumental |
| 22 | Retail | GER | x | x | | | | | Instrumental |
| 23 | Retail | GER | | x | x | x | | x | Integrative |
| 24 | Retail | NL | | x | x | x | | x | Integrative |
| 25 | Retail | NL | | x | x | | | | Instrumental |
| 26 | Tobacco | AT | x | x | | | x | | Instrumental |
| 27 | Transport | AT | | x | x | x | x | x | Integrative |
| 28 | Transport | AT | x | x | | x | | | Instrumental |
| 29 | Transport | GER | x | x | | | | | Instrumental |
| 30 | Transport | NL | | x | | | | | Instrumental |

Table 4 Data structure

| First-order concepts | Second-order themes | Aggregate dimensions |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------|
| <ul style="list-style-type: none"> • Profit vs costs • Stakeholder vs shareholder | Performing | Experienced paradoxical tensions |
| <ul style="list-style-type: none"> • Organizational indicators vs sustainability indicators • Integration vs separation of sustainability department | Organizing | |
| <ul style="list-style-type: none"> • Personal vs organizational interests • Moral vs business interests | Belonging (identity) | |
| <ul style="list-style-type: none"> • Short vs long term results • Evolutionary vs. revolutionary change | Learning (temporal) | |
| <ul style="list-style-type: none"> • Sustainability as a reputation tool • Risk avoidance • Benefiting from social and environmental concerns | Alignment | Instrumental "business case" strategies |
| <ul style="list-style-type: none"> • CSR separated from core business • Focusing on charity/giving back to society • Either/or thinking | Avoidance | |
| <ul style="list-style-type: none"> • Sustainable remuneration packages • Informal employee initiatives (green teams; volunteering) • Traditional and sustainable product/service offerings (twin-track) | Opposition | |
| <ul style="list-style-type: none"> • Volunteer work • Educational programs and workshops • Sabbaticals | Temporal separation | |
| <ul style="list-style-type: none"> • Allocation of sustainability responsibilities • Centralized vs decentralized sustainability • Locating sustainability departments | Spatial separation | Integrative "paradox" strategies |
| <ul style="list-style-type: none"> • Sustainability part of core strategy • Sustainability affecting organizational structure • Cementing sustainability in the firm's culture • Developing alternative corporate governance structures and policies | Synthesis | |

Table 5 Data supporting interpretations of second order themes - tensions

| Dimensions | Themes | Illustrative quotes |
|----------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Experienced tensions | Performing | <ul style="list-style-type: none"> - <i>"It is a constant battle. If we want a nice product with sustainable fabrics, the price is twice as expensive";</i> - <i>"You do see that for some the awareness of sustainability is limited, daily problems are mainly financial here. It is difficult because so many stakeholders want the opposite".</i> |
| | Organizing | <ul style="list-style-type: none"> - <i>"It is hard to measure what the impact is from our projects or what has been done by the usual business and local projects";</i> - <i>"With our separate sustainability department we do not have anything to say about the business".</i> |
| | Belonging (identity) | <ul style="list-style-type: none"> - <i>"When I look at our top management, it is not an anonymous decision to engage in sustainability and if so what sustainability effort prioritizes. Therefore I think that intrinsic personal motivation is important, and not all of our top managers have this intrinsic motivation";</i> - <i>"The biggest challenge is marketing. We should not communicate things that are untrue".</i> |
| | Learning (temporal) | <ul style="list-style-type: none"> - <i>"Firms create a long term vision but want short term results";</i> - <i>"There are some parts of the organisations that are judged on their sales and short term service deliveries".</i> |

Table 6 Data supporting interpretations of second order themes - strategies

| | | |
|--------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instrumental “business case” strategies | Alignment | <ul style="list-style-type: none"> - “We use these sustainability initiatives also as photo shoots since the topic has to be presented and promoted internally as well as externally”; - “I perceive CSR not as something how a company spends the money it has already earned but rather how an organization can earn its money”. |
| | Avoidance | <ul style="list-style-type: none"> - “A percentage of our profit margin we use to donate food to the homeless or money to non-profit organizations”; - “It is a balancing act between choosing for more or less profit and more or less sustainability stuff”. |
| Integrative “paradox” strategies | Opposition | <ul style="list-style-type: none"> - “The remuneration policy has changed so that 10% of the bonus structure of the board of directors is dependent on reaching sustainability structures”; - “An employee came with an initiative which his wife supported and then we try to see if there is energy in the organization to support this idea”. |
| | Temporal separation | <ul style="list-style-type: none"> - “We organize a digital employment day to which our employees can sign up to participate in sort of speed dating event and learn externals about digital issues”; - “Doing charitable work is still part of our strategy; we now focus more on technical education in neighboring towns where we have the know-how from our core business”; - “Our employees can be disappointed if we don’t involve in voluntary work so we do that in our foundation”. |
| | Spatial separation | <ul style="list-style-type: none"> - “We have a sustainability officer in the MT who is keeping this theme alive at the higher level”; - “I am, together with one of my colleagues, one of the only who conduct sustainability at the corporate level to look at the bigger issues but we want it to be integrated in the whole organisation”; - “It is important to consider where in the organization you put the responsibility for sustainability as this affects how it develops”. |
| | Synthesis | <ul style="list-style-type: none"> - “When we defined our sustainability strategy in 2012, it was important to us that it is grounded in our core business”; - “The most effective way is to combine two opposing views and bring them together”; - “we pay attention that the activities we pursue are on the one hand providing an added value for our company and on the other hand for the society and the environment”. |

Figure 1 Managing tensions in sustainable business models

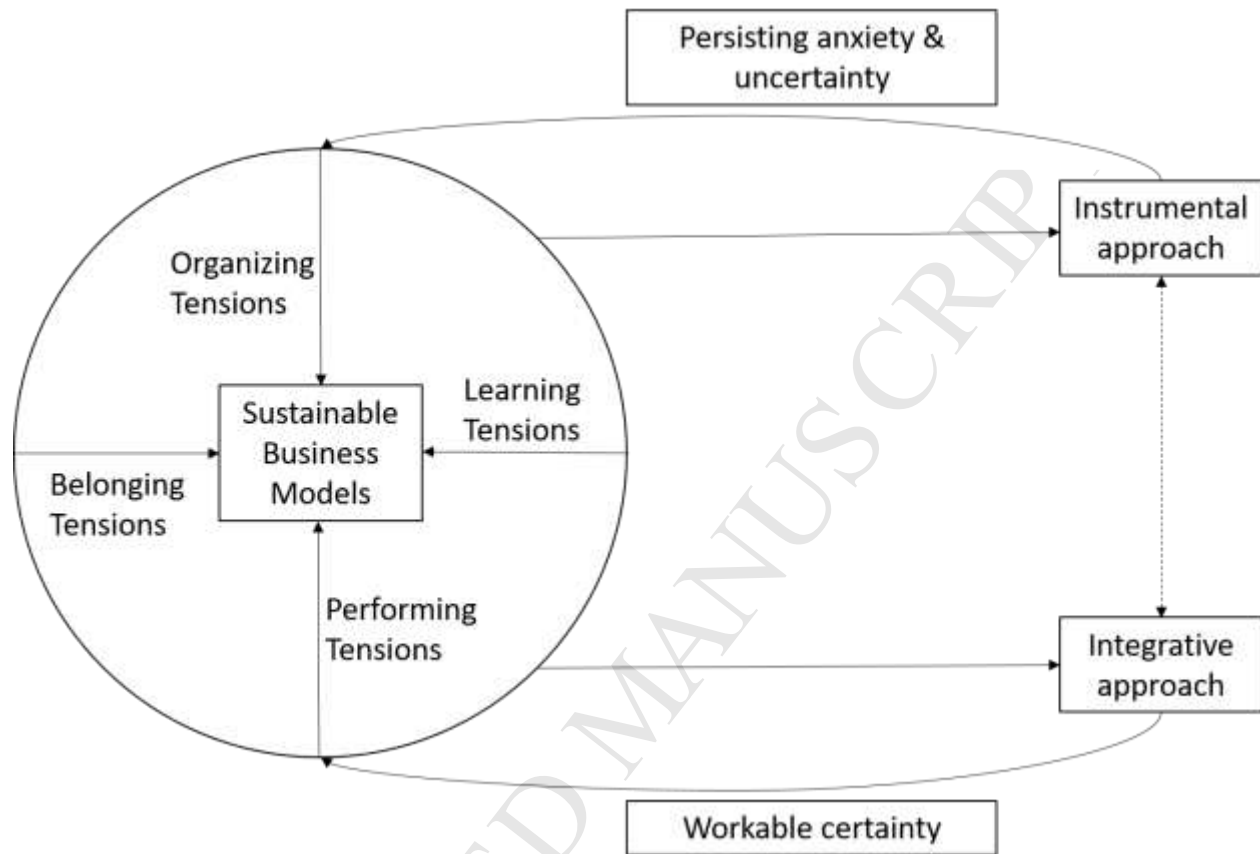


Table 1 Paradoxical tensions around sustainability

| Tension | Description | Examples |
|--------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Performing | Tensions emerging from multiplicity of stakeholders and goals | <ul style="list-style-type: none"> - Bottom line: financial bottom line vs. triple bottom line - Organizational focus: broad array of sustainability objectives vs. only profitable sustainability objectives |
| Belonging/Identity | Tensions emerging from individual and collective conflicts around identity and values | <ul style="list-style-type: none"> - Mission: focus on sustainability logic vs business logic - Organizational identity: homogeneous identities and values vs competing identities and values |
| Organizing | Tensions emerging from internal dynamics (culture, structure, leadership) | <ul style="list-style-type: none"> - Recruitment: focus on sustainability skills vs. business skills - Organizing sustainability: separate sustainability department vs. integrating into core operations |
| Learning/Temporal | Tensions emerging from multiple time horizons as growth, change and flexibility are pursued. | <ul style="list-style-type: none"> - Timing: short-term business focus vs. long-term sustainability focus - Change: revolutionary change or evolutionary change towards sustainability |

Table 2 Strategies for managing paradoxical tensions

| Strategies | | Examples |
|---------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suppression (instrumental) | Alignment | <ul style="list-style-type: none"> - Green energy to save costs and enhance reputation - Adhering to sustainability standards to satisfy client demands |
| | Avoidance | <ul style="list-style-type: none"> - Seeking trade-offs between economic and environmental concerns - Seeking trade-offs between economic and social concerns |
| Acceptance (integrative) | Opposition | <ul style="list-style-type: none"> - Long-term and short-term focus in bonus system - Novel/sustainable product lines combined with traditional ones |
| Resolution (integrative) | Spatial Separation | <ul style="list-style-type: none"> - Separating focus of CSR departments and other departments - Separating focus on goals and strategy of organization along organizational hierarchy |
| | Temporal Separation | <ul style="list-style-type: none"> - Sabbaticals for pursuing personal sustainability agenda - Employee volunteering programs |
| | Synthesis | <ul style="list-style-type: none"> - Setting up supporting policies, structures, cultures for integration - Creating hybrid organizations |

Table 3 Overview of firms and dominating strategies

| | Characteristics | | Predominant strategies used | | | | | | Dominant orientation |
|------|--------------------|---------|-----------------------------|-----------|------------|--------------------|---------------------|-----------|----------------------------|
| Firm | Industry | Country | Avoidance | Alignment | Opposition | Spatial Separation | Temporal Separation | Synthesis | Instrumental / Integrative |
| 1 | Apparel | GER | x | x | x | | | | Instrumental |
| 2 | Apparel | GER | | x | x | x | | x | Integrative |
| 3 | Apparel | NL | | x | x | x | x | x | Integrative |
| 4 | Apparel | NL | x | x | x | | | | Instrumental |
| 5 | Apparel | NL | x | x | | | | | Instrumental |
| 6 | Financial services | GER | | x | x | | x | x | Integrative |
| 7 | Financial services | GER | | x | x | x | | x | Integrative |
| 8 | Financial services | NL | x | x | | | | | Instrumental |
| 9 | Food and beverage | AT | | x | x | x | x | x | Integrative |
| 10 | Food and beverage | AT | x | x | | | | | Instrumental |
| 11 | Food and beverage | GER | x | x | x | | | | Instrumental |
| 12 | Food and beverage | GER | x | x | | x | | | Instrumental |
| 13 | Food and beverage | NL | | x | x | x | | x | Integrative |
| 14 | Food and beverage | NL | | x | x | x | x | x | Integrative |
| 15 | Gambling | AT | x | x | | | | | Instrumental |
| 16 | Gambling | AT | | x | x | x | | x | Integrative |
| 17 | Oil and gas | AT | | x | x | x | x | | Integrative |
| 18 | Oil and gas | AT | x | x | | | | | Instrumental |
| 19 | Oil and gas | NL | | x | x | x | x | | Integrative |
| 20 | Pharmaceuticals | AT | | x | | | | | Instrumental |

| | | | | | | | | | |
|----|-----------|-----|---|---|---|---|---|---|--------------|
| 21 | Retail | GER | x | x | | | | | Instrumental |
| 22 | Retail | GER | x | x | | | | | Instrumental |
| 23 | Retail | GER | | x | x | x | | x | Integrative |
| 24 | Retail | NL | | x | x | x | | x | Integrative |
| 25 | Retail | NL | | x | x | | | | Instrumental |
| 26 | Tobacco | AT | x | x | | | x | | Instrumental |
| 27 | Transport | AT | | x | x | x | x | x | Integrative |
| 28 | Transport | AT | x | x | | x | | | Instrumental |
| 29 | Transport | GER | x | x | | | | | Instrumental |
| 30 | Transport | NL | | x | | | | | Instrumental |

Table 4 Data structure

| First-order concepts | Second-order themes | Aggregate dimensions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------|
| <ul style="list-style-type: none"> Profit vs costs Stakeholder vs shareholder | Performing | Experienced paradoxical tensions |
| <ul style="list-style-type: none"> Organizational indicators vs sustainability indicators Integration vs separation of sustainability department | Organizing | |
| <ul style="list-style-type: none"> Personal vs organizational interests Moral vs business interests | Belonging (identity) | |
| <ul style="list-style-type: none"> Short vs long term results Evolutionary vs. revolutionary change | Learning (temporal) | |
| <ul style="list-style-type: none"> Sustainability as a reputation tool Risk avoidance Benefiting from social and environmental concerns | Alignment | |
| <ul style="list-style-type: none"> CSR separated from core business Focusing on charity/giving back to society Either/or thinking | Avoidance | Instrumental “business case” strategies |
| <ul style="list-style-type: none"> Sustainable remuneration packages Informal employee initiatives (green teams; volunteering) Traditional and sustainable product/service offerings (twin-track) | Opposition | |
| <ul style="list-style-type: none"> Volunteer work Educational programs and workshops Sabbaticals | Temporal separation | Integrative “paradox” strategies |
| <ul style="list-style-type: none"> Allocation of sustainability responsibilities Centralized vs decentralized sustainability Locating sustainability departments | Spatial separation | |
| <ul style="list-style-type: none"> Sustainability part of core strategy Sustainability affecting organizational structure Cementing sustainability in the firm’s culture Developing alternative corporate governance structures and policies | Synthesis | |
| | | |

Table 5 Data supporting interpretations of second order themes - tensions

| Dimensions | Themes | Illustrative quotes |
|----------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Experienced tensions | Performing | <ul style="list-style-type: none"> - <i>"It is a constant battle. If we want a nice product with sustainable fabrics, the price is twice as expensive";</i> - <i>"You do see that for some the awareness of sustainability is limited, daily problems are mainly financial here. It is difficult because so many stakeholders want the opposite".</i> |
| | Organizing | <ul style="list-style-type: none"> - <i>"It is hard to measure what the impact is from our projects or what has been done by the usual business and local projects";</i> - <i>"With our separate sustainability department we do not have anything to say about the business".</i> |
| | Belonging (identity) | <ul style="list-style-type: none"> - <i>"When I look at our top management, it is not an anonymous decision to engage in sustainability and if so what sustainability effort prioritizes. Therefore I think that intrinsic personal motivation is important, and not all of our top managers have this intrinsic motivation";</i> - <i>"The biggest challenge is marketing. We should not communicate things that are untrue".</i> |
| | Learning (temporal) | <ul style="list-style-type: none"> - <i>"Firms create a long term vision but want short term results";</i> - <i>"There are some parts of the organisations that are judged on their sales and short term service deliveries".</i> |

Table 6 Data supporting interpretations of second order themes - strategies

| Dimensions | Themes | Illustrative quotes |
|-----------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Instrumental “business case” strategies | Alignment | <ul style="list-style-type: none"> - “We use these sustainability initiatives also as photo shoots since the topic has to be presented and promoted internally as well as externally”; - “I perceive CSR not as something how a company spends the money it has already earned but rather how an organization can earn its money”. |
| | Avoidance | <ul style="list-style-type: none"> - “A percentage of our profit margin we use to donate food to the homeless or money to non-profit organizations”; - “It is a balancing act between choosing for more or less profit and more or less sustainability stuff”. |
| Integrative “paradox” strategies | Opposition | <ul style="list-style-type: none"> - “The remuneration policy has changed so that 10% of the bonus structure of the board of directors is dependent on reaching sustainability structures”; - “An employee came with an initiative which his wife supported and then we try to see if there is energy in the organization to support this idea”. |
| | Temporal separation | <ul style="list-style-type: none"> - “We organize a digital employment day to which our employees can sign up to participate in sort of speed dating event and learn externals about digital issues”; - “Doing charitable work is still part of our strategy; we now focus more on technical education in neighboring towns where we have the know-how from our core business”; - “Our employees can be disappointed if we don’t involve in voluntary work so we do that in our foundation”. |
| | Spatial separation | <ul style="list-style-type: none"> - “We have a sustainability officer in the MT who is keeping this theme alive at the higher level”; - “I am, together with one of my colleagues, one of the only who conduct sustainability at the corporate level to look at the bigger issues but we want it to be integrated in the whole organisation”; - “It is important to consider where in the organization you put the responsibility for sustainability as this affects how it develops”. |
| | Synthesis | <ul style="list-style-type: none"> - “When we defined our sustainability strategy in 2012, it was important to us that it is grounded in our core business”; - “The most effective way is to combine two opposing views and bring them together”; - “we pay attention that the activities we pursue are on the one hand providing an added value for our company and on the other hand for the society and the environment”. |

Appendix A - Interview protocol

| |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Introduction to the research project |
| 2. What does corporate sustainability mean for your organization? |
| 3. Which measures (initiatives, strategies, policies etc.) are taken by the organization towards it? |
| 4. What is your understanding of a SBM (in case unclear explain)? How does it relate to corporate sustainability? |
| 5. Considering the corporate sustainability initiatives of your firm, how does it contribute to business model innovations for sustainability? |
| 6. While engaging with corporate sustainability, do you experience any challenges or tensions? |
| 7. What are these tensions? |
| 8. How do you manage these tensions and why in this way? |
| 9. What is the effect of this approach on these tensions? |
| 10. What are the outcomes of your approach on the management of sustainability within the firm? |