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Schaltegger, Stefan; Lüdeke-Freund, Florian; Hansen, Erik G.

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Business Cases for Sustainability and the Role of Business Model Innovation

Developing a Conceptual Framework



Stefan Schaltegger*, Florian Lüdeke-Freund & Erik G. Hansen

Centre for Sustainability Management (CSM)
Leuphana Universität Lüneburg
Scharnhorststr. 1
D-21335 Lüneburg

Fax: +49-4131-677-2186
csm@uni.leuphana.de
www.leuphana.de/csm/

* Corresponding author, email schaltegger@uni.leuphana.de

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Centre for Sustainability Management (CSM)
Leuphana University of Lüneburg
Scharnhorststr. 1
D-21335 Lüneburg

Centrum für Nachhaltigkeitsmanagement (CNM)
Leuphana Universität Lüneburg
Scharnhorststr. 1
D-21335 Lüneburg

Tel. +49-4131-677-2181
Fax. +49-4131-677-2186
E-mail: csm@uni.leuphana.de
www.leuphana.de/csm

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ABSTRACT

A considerable body of literature deals with the creation of economic value while increasing corporate environmental and social performance. Some publications even focus on the business case for sustainability which is targeted towards increasing corporate economic value *through* environmental or social measures. The existence of a business case for sustainability is, however, mostly considered to be an ad hoc measure, an add-on to core business, or simply a coincidence. As a contrast to these views this paper argues that to support a systematic, ongoing creation of business cases for sustainability may require business model innovation. A framework for business model innovation is proposed as a means to strategically create business cases on a regular basis as an inherent, deeply integrated element of business activities.

Keywords

business case for sustainability; business case drivers; business model; business model innovation; radical innovation; sustainability strategies; strategic management; framework; conceptual model

1. INTRODUCTION

Companies have without doubt a large influence on the economy and life in general. No sustainable development is possible without a sustainable development of corporations. Corporate management is therefore a crucial actor in shaping the future development of companies as well as the economy and society. Management activities are based on managerial decisions derived from reference points such as corporate visions and strategies which shape the business model and the organizational development of a company. Unsustainable management decisions neglecting social and environmental issues impede the whole corporate organization from improving in sustainability terms. Corporate sustainability strategies are thus of crucial importance to sustainable development but also for successfully directing a company through sustainability related social, legal, political and economic requirements under conditions of market competition.

The fact that companies are founded and run for economic purposes requires management to develop most of its societal engagement in relation to the economic goals of the corporation. Corporate sustainability strategies are therefore challenged to recognize both, market sustainability as well as social and environmental sustainability equally (Parnell, 2008). To achieve this integration is the target and purpose of a business case for sustainability.

This paper proposes that a business case for sustainability can be created by addressing business case drivers. It furthermore argues that to strategically create business cases (plural!) for sustainability on a continuous basis requires an innovative business model which supports the management of voluntary social and environmental activities in addressing the business case drivers in a systematic manner. To achieve this it can be necessary to adapt or even radically change a company's business model, i.e. to engage in business model innovation, to let these drivers unfold their full potential in terms of business success and contributions to sustainable development.

The paper is structured as follows. After a discussion of what can be understood by a business case for sustainability (*Section 2*), business case drivers are discussed with regard to sustainability (*Section 3*). *Section 4* deals with the role the business model and strategy can exert on the creation of business cases. This analysis provides the basis to discuss business model innovation as a strategic driver for the systematic on-going creation of business cases for sustainability (*Section 5*). Finally, *Section 6* introduces a business case framework that integrates corporate sustainability strategies, business case drivers, and business model innovation. The discussion in *Section 7* summarises the core findings of this paper and highlights the framework's strengths and weaknesses.

2. WHAT IS A BUSINESS CASE FOR SUSTAINABILITY?

A business case, or what scholars in business ethics often call “enlightened self-interest” (see e.g. Carroll, 1991, p.43; Frederick, 1978/1994, p.151; Garriga and Melé, 2004, p.53; Mintzberg, 1983, p.4; Tracey et al., 2005, p.330), is mostly described by a situation where economic success is increased while performing in environmental and social issues. The role of creating a business case for sustainability has been discussed for many years (e.g. Dyllick and Hockerts, 2002; Epstein and Roy, 2003; Holliday et al., 2002; Perceva, 2003; Schaltegger and Wagner, 2006; Steger, 2004). One line of discussion is whether creating business cases of sustainability is sufficient to achieve corporate sustainability and sustainable development (Dyllick and Hockerts, 2002). Others elaborate on the question whether environmental and social activities and performance are only a side effect of pure economic rationality (e.g. Eden, 1994). Corporate sustainability “is promoted if profitable, for example, because of an improved reputation in various markets” (Marrewijk, 2003, p. 102).

This paper focuses on a third perspective which deals with links between voluntary environmental and social activities and corporate economic success, and how these links can be managed, advanced, or innovated in order to improve economic success *through* voluntary social and environmental activities.

On a general level, the link between environmental and economic performance has been a topic of debate in the literature for more than fifteen years (see e.g. Burke and Logsdon, 1996; Edwards, 1998; Griffin and Mahon, 1997; Hamilton, 1995; Heinze et al., 1999; Margolis and Walsh, 2003; Pava and Krausz, 1996; Porter and van der Linde, 1995a; 1995b; Russo and Fouts, 1997; Wagner and Schaltegger, 2003). Whereas in the beginning most of the debate was about whether a positive link or a business case exists or not (see e.g. Esty and Porter, 1998; Hart and Ahuja, 1996; Reinhardt, 1999), research has shifted for the last couple of years towards the question what kind of links exist between voluntary environmental and social engagement and business success (Holme and Watts, 2000; Lankoski, 2000; 2006; Margolis and Walsh, 2003; Martin, 2002; Pearce, 2003; Reinhardt, 2000; SustainAbility, 2001; Wagner et al., 2002; Wagner, 2007).

One conclusion of this research is that it is an illusion to believe that any kind of automatic relationship exists between voluntary societal activities and business success (Schaltegger and Synnestvedt, 2002; Steger, 2004; Wagner, 2007). Theoretical and empirical research indicates that most companies seem to have potential for one or several business cases for sustainability (Schaltegger and Wagner, 2006; Steger, 2004). However, this potential is often not recognized because of distorted accounting and management information systems (Wallmann, 1995) and other organizational rigidities (Steger, 2004). As a consequence, management is challenged to find approaches to realise potential business cases through adequate sustainability management. A business case for sustainability has to be created – it does not just happen.

A business case *for* sustainability – as a difference to just a conventional business case or a business case *of* sustainability – has the purpose to and does realize economic success *through* (not

just with) an intelligent design of voluntary environmental and social activities. A business case for sustainability is thus characterised by three requirements which have to be met.

Firstly, the company has to realize a voluntary or mainly *voluntary activity with the intention to contribute to the solution of societal or environmental problems*. These are intended activities for the society or the natural environment which are not just a reaction to legal enforcement or dominated by legal requirements or which would be expected for economic reasons as part of conventional business behaviour anyhow.

Secondly, the activity must *create a positive business effect* or a positive economic contribution to corporate success which can be measured or argued for in a convincing way. Such effects can be cost savings, the increase of sales or competitiveness, improved profitability, customer retention or reputation, etc. The cause and effect relationship can be direct or indirect, however, must not be speculative but rather based on a sound business argumentation.

Thirdly, a clear and convincing argumentation must exist that a *certain management activity* has led or will lead to both, the intended societal or environmental effects, and the economic effect. A business case for sustainability is characterised by creating economic success *through* (and not just along with) a certain environmental or social activity.

Considering these three characteristics of a business case for sustainability may provide some explanation for the different views about the role, value and effects of a business case with regard to sustainable development. The question for example, whether creating business cases is sufficient to achieve corporate sustainability and sustainable development (Dyllick and Hockerts, 2002) is justified if management does not have the initial intention to solve social or environmental problems, if environmental and social activities are only a side effect of pure economic rationality (e.g. Eden, 1994), or if the company just tries to leverage economic performance with coincidental sustainability contributions (Marrewijk, 2003, p.102). However, accepting or increasing profit of (coincidental) sustainability activities is fundamentally different from planning and realizing voluntary social and environmental activities through which economic performance is created or increased.

To create a business case for sustainability requires strategic management to identify, create and strengthen the links between non-monetary social and environmental activities on the one hand and business or economic success on the other hand. Furthermore, in order to achieve such business cases the formulation and implementation of corporate strategies have to change, compared to strategies that only strive for "market sustainability" through competitive advantages in the sense of the resource based theory of the firm, for example (cf. Parnell, 2008; Stead and Stead, 2008). That is, strategic objectives and measures, and sometimes even the business model of a firm, have to be oriented towards a Triple Bottom Line (e.g. Elkington, 1998; Norman and MacDonald, 2004). Based on these key assumptions this paper asks how strategic sustainability management can contribute to create and manage business cases for sustainability, what drivers it has to address in order to create a business case for sustainability, and how business model innovation can serve as a framework for this endeavour.

3. DRIVERS OF BUSINESS CASES FOR SUSTAINABILITY

To discuss and manage business cases for sustainability requires some understanding of the relationship between voluntary societal activities and corporate economic success. Various models have been proposed to analyse these links theoretically and empirically (for overviews see e.g. Salzmann et al., 2005; Schaltegger and Wagner, 2006).

Earlier work on this issue mostly assumed that the optimum level of environmental or social performance for a firm may be just achieving legal compliance with regulation. This “traditionalist” view argues that firms face a trade-off between (better) environmental or social performance on the one hand and (worse) economic performance or competitiveness on the other (e.g. Wagner, 2007; Walley and Whitehead, 1994; Palmer et al., 1995; Simpson and Bradford, 1996; Xepapadeas and De Zeeuw, 1999).

Whereas reactionary people will maintain that any kind of voluntary activity outside the narrower focus of economic measures will hamper profit (Hemphill (1997) calls this perspective the “minimalist” view), modernist and innovative observers of business reality will find examples of profit increasing or business supporting measures. Most of the more recent research on the links between voluntary sustainability measures and corporate economic success emphasizes the possibility of win-win- or triple-win potentials (e.g. Eyring et al., 2011; Holme and Watts, 2000; Lankoski, 2000; 2006; Margolis and Walsh, 2003; Martin, 2002; Pearce, 2003; Porter and Kramer, 2011; Reinhardt, 2000; Schaltegger and Synnestvedt 2002; SustainAbility, 2001; Wagner et al., 2002; Wagner, 2007).

Examples can of course be found for both effects, such as end-of-pipe measures creating costs and reducing profitability on one side, or the sales success and profitability of green products on the other side. The economic return of a certain environmental or social performance will vary whether cost-driving or profit-driving activities have been chosen and designed.

In other words, there is no general answer to whether it pays to be green (e.g. Reinhardt, 1999; 2000), but it is rather a management challenge to create societal engagement in a way that it contributes to business and economic success. It depends on what kind of measures is chosen. A business case for sustainability has to be created and managed – it does not just happen.

The fact that business case potentials are often overseen, even by well-informed corporate professionals, and the necessity to identify and analyse business case potentials and to manage them in a structured way is maybe most apparent in production where cleaner production approaches have had difficulties to spread on a wide basis for the last decades even in companies with large cost saving potentials (e.g. Montalvo and Kemp, 2008; Montalvo, 2008). Furthermore, sustainability potentials are often overseen due to a lack of integration with processes of strategy formulation and, related to this, due to lock-in effects of established company business models which set boundaries to variations of corporate behaviour (e.g. Johnson, 2010).

However, even if the most profitable measures are chosen, the success will at some point have its culmination and decline because no company will have an unlimited number of profit-increasing

voluntary social or environmental activities in a given business model (Schaltegger and Synnestvedt, 2002). The core question and the basis for any management of a business case for sustainability is thus how profit increasing societal activities, rather than cost increasing measures, can be identified and integrated with the core business approach of a company. This is where managing a business case for sustainability links in with strategic sustainability management and business model innovation (see e.g. Porter and Kramer, 2011). The first linking step is the discussion of drivers of a business case.

The drivers of a business case for sustainability are variables which directly influence economic success and therefore are related to the drivers of a conventional business case (for an overview of performance drivers see Olve et al., 1999). However, the links between voluntary sustainability activities and economic success are often different and therefore also the kind of influence a social or environmental activity has on the economic drivers. Among the core drivers of a business case for sustainability are:

- Costs and cost reduction (see e.g. Christmann, 2000; Epstein, 1996)
- Sales and profit margin (see e.g. Porter and van der Linde, 1995a; 1995b)
- Risk and risk reduction (see e.g. Schaltegger and Wagner, 2006; Loew et al., 2011)
- Reputation and brand value (see e.g. Jones and Rubin, 1999; Marrewijk, 2003)
- Attractiveness as employer (see e.g. Ehnert, 2009; Revell et al., 2010)
- Innovative capabilities (see e.g. Cohen and Winn, 2007; Pujari, 2006; Schaltegger and Wagner, 2011)

All voluntary social and environmental projects and activities can be analysed in terms of their influence on these drivers. Furthermore, other drivers such as market entry or development can play an important role depending on the circumstances and the company's strategy (e.g. Porter and van der Linde, 1995b). Current empirical research shows that these six main drivers are by no means randomly compiled. For example, Collins, Roper, and Lawrence (2010) identified reputation and brand, employees' demands, risk management and potential cost reductions as most important drivers to be recognized when adopting environmental and social initiatives. While these authors analyzed small and medium-sized enterprises (SMEs) from New Zealand, Revell and colleagues found similar drivers in their empirical research on SMEs in the UK (Revell and Blackburn, 2007; Revell et al., 2010). Their sample data from 2006 and 2007 illustrates that at this time owner-managers were still somehow sceptical about the potential to create business cases based on positive environmental contributions. Still, at the same time, Revell, Stokes, and Chen (2010) identify the drivers that might contribute to business success when striving for environmental reform in business: cost reductions (e.g. through resource efficiency) are seen as the most promising driver, followed by aspects such as dealing with regulatory risks, attracting and retaining staff, attracting new customers and increasing market share, as well as attaining good publicity.

An important issue which is often neglected when assessing the business or economic effect of societal activities is that their path of influence (or cause-and-effect link) can be quite indirect, involving non-market links and actors such as political initiatives, NGOs, etc. In addition, these relationships can be stochastic which makes their management more difficult (e.g. Edwards, 1998; Griffin and Mahon, 1997; Lankoski, 2000; 2006; Salzmann et al., 2005). The variety of possible

relationships and the different character of sustainability issues requires firstly to distinguish different strategic positions towards integrating the societal and environmental dimensions with business (e.g. Aragón-Correa and Rubio-López, 2007; Bhimani and Soonwalla, 2005; Epstein, 2003; Parnell, 2008; Schaltegger and Wagner, 2011), and secondly to clarify if and how specific socially or environmentally relevant projects or activities influence the business model of a firm (e.g. Birkin et al., 2009a; Birkin et al., 2009b; Eyring et al., 2011; Porter and Kramer, 2011; Stubbs and Cocklin, 2008). This provides a basis for the discussion of interrelations between business cases for sustainability, sustainability-oriented strategies, and business model management.

4. FROM BUSINESS CASES TO BUSINESS MODELS FOR SUSTAINABILITY

Neither theoretical nor empirical research offers sufficient answers to the question what a sustainable business model might be (e.g. Stubbs and Cocklin, 2008). Moreover, the integration of the business model with sustainability evokes significant conceptual challenges: On the one hand the integration of economically relevant sustainability aspects with corporate business success is a multidimensional task (e.g. Hansen et al., 2009; Stead and Stead, 2008; Schaltegger, 2011; Wagner, 2007), while on the other the business model of a firm is a somehow elusive idea of how business is conducted in order to create and capture economic value (e.g. Mäkinen and Seppänen, 2007; Teece, 2010; Zott et al., 2011).

Mapping the links between both concepts may, however, be worthwhile to get from business cases for sustainability, which can be based on single and event-driven occasions, to business models for sustainability, which instead can serve as a kind of template for reproducing business cases on a regular basis. Moving from single to continuous business case creation may be supported by a business model rationale which positions sustainability as an integral part of the company's value proposition and value creation logic.

Theoretical considerations suggest that various approaches to *integrating* sustainability aspects into a business model as well as *extending* it should exist and that these should be directly related to the degree to which environmental and social aspects have become ingrained into the corporate sustainability strategy that underlies the business model. In general, it seems obvious that as environmental and social issues gain relevance in the strategy, more extensive business model modifications have to be conducted; both, with regard to modifications of existing models as well as the development of new ones from sketch.

In the conceptual framework proposed here, the business case drivers have the character of intermediating variables which link the corporate sustainability strategy with the "architectural" business model level of a firm (for general interrelations between business strategy and business architecture see e.g. Osterwalder, 2004; Teece, 2010). To map the links between business case drivers, corporate sustainability strategies, and business models, the following three questions are crucial:

- Does a corporate sustainability strategy comprise activities and projects which explicitly address the business case drivers?
- Does the way of addressing these drivers conform to the characterization of a business case for sustainability?
- Does the way a corporate sustainability strategy addresses business case drivers lead to or require business model modifications or business model innovations in order to achieve economic success?

To offer a management approach that identifies the crucial links between the drivers of a business case for sustainability, the corporate sustainability strategy and the business model, two types of interrelations have to be characterised: first, links between corporate sustainability strategies and

business case drivers, and, second, links between business case drivers and the business model. Thus, management decisions can be supported by answering the question whether a business case for sustainability requires a modified or even a completely new business model.

4.1 *The links between corporate sustainability strategy and business case drivers*

Various taxonomies and typologies of sustainability strategies have been established representing a continuum ranging from defensive to proactive approaches. Many of these strategies are based on Carroll's seminal work on social responsiveness categories (Carroll, 1979; see also Wartick and Cochrane, 1985). These, in turn, mostly developed from the basic strategies and philosophies identified earlier by McAdam (1973), Wilson (1975), and Davis and Blomstrom (1975). Due to its generic character the scale proposed by Wilson often serves as a point of orientation for managerial approaches and receives wide acceptance amongst scholars in the area of sustainability and CSR (see e.g. Azzone and Bertelè, 1994; Henriques and Sadosky, 1999; Roome, 1992; Wartick and Cochrane, 1985; for a more detailed review of taxonomies and typologies see Buysse and Verbeke, 2003). He defines *reactive*, *defensive*, *accommodative*, and *proactive* postures of responsiveness (Wilson, 1975), a continuum which Henriques and Sadosky (1999) also call the "RDAP scale". As the reactive strategy entirely neglects environmental and social issues, only the three strategy types defensive, accommodative, and proactive are helpful in analyzing strategy and business case driver interrelations.

These three strategies are related to the above introduced business case drivers as follows (similar links between corporate performance and environmental strategies were established by, for example, Aragón-Correa and Rubio-López, 2007; Henriques and Sadosky, 1999; and Roome, 1992):

- *Defensive (limited integration)*: Defensive strategic behaviour is often a reaction on (perceived) cost-constraints. Managers deal with sustainability issues in a rather narrow, reactive manner. The main motivation behind defensive strategies is not to gain competitive advantage with sustainability performance, but the need to comply with legislation (also termed "compliance strategy"; Roome, 1992, p.18). Defensive strategies are directed towards the protection of the existing business and revenue generating rationale ("business logic"; Prahalad and Bettis, 1995). Efficiency and cost-related aspects are addressed as well as communication and public relations to reduce reputational and legislative risks.
- *Accommodative (integration)*: This strategy reflects a rather cautious modification of internal processes and the modest consideration of environmental or social objectives such as environmental protection, eco-efficiency, or occupational health and safety. Managers are willing to use sustainability management systems and tools to control the organization and are partly aware of the need for organizational change which requires some involvement and training of employees (comparable to Roome's "compliance-plus strategy"; Roome, 1992; pp.18-19). Overall, accommodation strategies integrate environmental or social objectives in most of the business processes and maybe partly in the product range, however, without questioning the revenue logic or the core business as such.

- *Proactive (full integration)*: Proactive strategies integrate environmental or social objectives as part of the core business logic in order to contribute to sustainable development of the economy and society. The core business and thus all business processes and the full product range are directed towards sustainability, as is the revenue logic. Therefore, central concepts such as the definitions of costs and risks are modified to account for negative externalities, i.e. social costs and risks. Efficiency and cost-related aspects are addressed as well as customer issues, sustainability-oriented innovation capabilities and societal “non-market” issues. A proactive strategy pursues business and sustainability goals simultaneously and strives for business leadership through outstanding sustainability performance (this refers to what Roome calls “commercial and environmental excellence” and “leading edge”; Roome, 1992, p.19).

Table 1: Interrelations between corporate sustainability strategies and business case drivers

Core drivers of business cases for sustainability	Corporate sustainability strategy		
	Defensive	Accommodative	Proactive
Costs and cost reduction	Mainly cost and efficiency-oriented compliance activities (often “low hanging fruit” only)	Cost and efficiency-oriented activities actively pursued and linked to sustainability issues when possible	Cost and efficiency-oriented activities actively created to achieve sustainability goals; cost concept includes external social costs
Sales and profit margin	Products or product communication are adapted to reduce risks of sales decrease	Sustainability-oriented customer segments are partly acknowledged and served with specific products (besides existing conventional product lines)	Market-oriented strategies to gain competitive advantage by making sustainability-oriented products and services become the core of the company’s portfolio
Risk and risk reduction	Sustainability issues seen as sources of risk; activities aim at risk reduction (in contrast to precaution)	Sustainability and risk management seen as complementary and opportunity-creating concepts	Sustainability and risk management seen as complementary and opportunity-creating concepts; risk concept includes social risks
Reputation and brand value	[Reputational activities, rather reactive and mainly oriented towards risk reduction]	Sustainability activities have limited potential to contribute to reputation and brand due to mainly internal focus	Sustainability activities contribute to reputation and brand as they are boundary-spanning and integrating stakeholders
Attractiveness as employer	Increased salaries to retain and attract personnel	Further education and innovative positions limited; sustainability units may exist	Further education, innovative positions, social attention (e.g. towards families) increase attractiveness to highly skilled workforce
Innovative capabilities	Innovations to obscure non-performance with regard to sustainability (e.g. “greenwashed” products)	Process, product, and organizational innovations limited by boundaries of existing business logic	Sustainability-oriented process, product, and organizational innovations transform business logic; sustainability problems and stakeholders are considered a key source of innovation

As can be seen from Table 1, different sustainability strategies put different emphases on the single business case drivers. Consequently, every sustainability strategy is supposed to affect the business model of a company differently. Before mapping the links between strategy and business model (which is an ongoing and controversial debate amongst strategy scholars; e.g. Casadesus-Masanell and Ricart, 2010), the latter has to be linked to the business case drivers. Based on these links, every modification or development of the business model with the strategic intention to support voluntary environmental and social activities contributing to these drivers can be regarded as an approach towards a business model for sustainability.

4.2 *The links between business model and business case drivers*

Progress in corporate sustainability is a venture based on normative and strategic foundations which have to be translated into practical operations through adequate concepts and instruments which help guide managers and entrepreneurs (see e.g. Schaltegger and Burritt, 2005; Schaltegger and Wagner, 2006). The above outlined interrelations between corporate sustainability strategies and the business case drivers illustrate this requirement once more. Beyond that, it is also a question of how to change the existing, i.e. dominating, business logic of a company, which is a common theme in strategic management and organization studies (several “mainstream” authors address this topic from a business model perspective; see e.g. Chesbrough, 2007; 2010; Johnson, 2010; Johnson et al., 2008; Mitchell and Coles, 2003; 2004a; 2004b; Teece, 2010). Thus, the impacts of striving for corporate sustainability through the respective strategies on the business logic of a company represented by the business model, and vice versa, have to be studied (only a limited number of authors deal with this type of sustainability-oriented organizational change; see e.g. Birkin et al., 2009a; Birkin et al., 2009b; Stubbs and Cocklin, 2008).

Two different causalities between sustainability strategies and the business model may be considered. First, if a company implements a strategy aiming at the business case for sustainability (e.g. Schaltegger and Wagner, 2006) the business model may have to change (directly or indirectly); i.e. the need for improved business case drivers (e.g. the need to improve cost structures due to more expensive but environmentally friendly production inputs) may have an effect on the business model configuration (see Table 2). Second, and vice versa, the business model also determines and constrains corporate strategy and the business case for sustainability. The business model is often interpreted as a determining factor of corporate behaviour and thus business opportunities (e.g. Baden-Fuller and Morgan, 2010; Chesbrough, 2010; Elkington, 2004 [who calls the business model the “DNA of business”]; Wirtz, 2011; Yip, 2004; Zott et al., 2011); i.e. the business model in turn influences business strategy and operative outcomes (such as cost structures).

In other words, a company which tries to improve its sustainability performance has to change its business model, however incremental or radical, which can turn out to be *the* decisive (i.e. limiting or supporting) factor for succeeding in creating one or many business cases for sustainability (concerning different intensities of business model modification and innovation see e.g. Chesbrough, 2007; 2010; Mitchell and Coles, 2003; Yip, 2004). Despite its fundamental

significance, the business model has been neglected in academic and practitioner-oriented literature on corporate sustainability and corporate sustainability management.

Therefore, in order to map out interrelations between business case drivers and the business model, a general business model concept has to be introduced. Four central pillars can be identified when reviewing relevant literature (Ballon, 2007, p.8; emphases added):

- “the products and services a firm offers, representing a substantial value to a target customer (*value proposition*), and for which he is willing to pay;
- the relationship the firm creates and maintains with the *customer*, in order to satisfy him and to generate sustainable [here: long-term] revenues;
- the *infrastructure* and the network of partners that are necessary in order to create value and to maintain a good customer relationship; and
- the *financial aspects* that can be found throughout the three former components, such as cost and revenue structures.”

From a strategic management perspective a business model primarily focuses on the value created for customers (e.g. Wirtz, 2011). Therefore, a company has to manage its partnerships, activities, and resources, i.e. its infrastructure, to offer adequate value configurations for products and services, whereas activities and resources are both company-owned and acquired from partners (e.g. Amit and Zott, 2010; Zott and Amit, 2011). To address customer segments communication and distribution channels as well as diverse customer relationships have to be established. Finally, the financial aspects refer to optimizing revenue streams from customers as well as infrastructure costs in order to appropriate economic value for the company (e.g. Osterwalder, 2004). Osterwalder’s business model concept was among the first to include a thorough definition and a representation based on these four pillars and their relationships (ibid.); meanwhile, variations of this concept can be found throughout the present literature (e.g. Johnson et al., 2008; Johnson, 2010; Wirtz, 2011; Chesbrough, 2010).

Understanding these four pillars is crucial for managing a business model and it is even more important for understanding business model innovation (e.g. Chesbrough, 2010; Teece, 2010; Wirtz, 2011; Zott et al., 2011). Whilst the four business model pillars describe the logic of companies in more general terms, when it comes to *sustainability-oriented* business model innovation it is essential to understand and manage the links between these pillars and the business case drivers – which in turn influence whether a business case is created or not. Table 2 shows possible interrelations between the business model pillars and business case drivers.

Table 2: Interrelations between business model and business case drivers

	Generic business model pillars			
Core drivers of business cases for sustainability	Value Proposition (VP)	Customer relationships (CR)	Business infrastructure (BI)	Financial aspects (FA)
Costs and cost reduction	Products and services with lower energy or maintenance costs for customers	Cost-efficient contracting relationships, closed-loop service systems	Costs of new products and services can be lowered through partnerships	Balancing cost reductions for customers and cost structures of new products and services to increase profitability
Sales and profit margin	Environmentally and socially superior products and services require modified or new VPs to turn into sales and profits	Higher customer retention and customer value as a result of sustainability-oriented, service-intensive relationships	New products and services may require strategic partnerships (e.g. co-opetition) to overcome market barriers	New products and services and/or new customer relationships contribute to diversified revenue streams
Risk and risk reduction	Lowering societal risks through products and services can create value to certain customer segments	Service-relationships reducing sustainability risks for customers result in higher customer loyalty	Resources, activities, and partnerships set up in order to minimize internal and external risks	Improved risk and credit rating resulting from lowered sustainability risks
Reputation and brand value	Sustainability as distinctive element of good corporate reputation	Sustainability as marketing feature of the brand increasing customer loyalty	Strategic partnerships with sustainability leaders can increase reputation and brand value	Sustainability performance leading to a good rating and the consideration in sustainability indices and funds
Attractiveness as employer	A companies' offerings and VPs allowing for personal identification to attract employees	Better customer service as a result of higher employee motivation	Attractiveness as principal can enhance the quality of activities, resources, and partnerships	Reduced costs for HR acquisition, less fluctuation costs and lower compensation costs
Innovative capabilities	Unfolding the full sustainability-potential of innovations enables modified or new VPs	Innovative products and services creating solutions to sustainability problems, improving customer retention	To allow for innovations to unfold may require new activities, resources, and partnerships	Higher innovation potential and expectations for profitable innovations leading to an increase of shareholder value

As Table 2 shows, the different business model pillars are differently affected by the business case drivers. That is, based on the chosen sustainability strategy, different drivers are addressed which in turn requires different degrees of business model innovation.

5. THE ROLE OF BUSINESS MODEL INNOVATION

5.1 *Introducing business model innovation*

Despite the fact that business model research is a rather young field of management studies (e.g. Baden-Fuller and Morgan, 2010; Zott et al., 2011), a broad discourse on business model innovation has evolved for the last decade (e.g. Chesbrough and Rosenbloom, 2002; Chesbrough, 2007; 2010; Mitchell and Coles, 2003; 2004a; 2004b; Demil and Lecoq, 2010; Johnson, 2010; Johnson et al., 2008; Teece, 2010; Zott et al., 2011). According to the literature review conducted by Zott, Amit, and Massa there is consensus on some core issues of research on business model innovation. Scholars seem to agree that the business model is not only a facilitator of technological and organizational innovations, but can become itself subject to strategic innovation in order to share and leverage resources such as knowledge, managerial and entrepreneurial skills, or to enable reconfigurations of the underlying value chain or value network (e.g. Schweizer, 2005; Wirtz, 2011). From this perspective the business model is a strategic asset to improve firm performance (e.g., Afuah, 2004; Casadesus-Masanell and Ricart, 2010; Chesbrough, 2007; Hamel, 2000; Magretta, 2002), and, more fundamentally, may define a leadership agenda on strategic business model management and innovation (e.g. Chesbrough, 2010; Doz and Kosonen, 2010; Smith et al., 2010). However, the current discourse nearly fully ignores issues of corporate sustainability (exceptions are e.g. Johnson and Suskewicz (2009) with regard to eco-innovations and Yunus et al. (2010) with regard to social entrepreneurship).

To fill this gap, a basic understanding of what constitutes business model innovation has to be related to corporate strategies, the above defined drivers and the concept of the business case for sustainability. The framework introduced by Mitchell and Coles (2003) provides an appropriate starting point. In a longitudinal study on 100 public companies they analysed that outperforming companies shared one common feature:

“... it was clear that perennial top performers were frequently making fundamental improvements in several dimensions ... of their business models at once for serving their customers, end users and other important stakeholders (such as employees, partners, suppliers, distributors, lenders, shareholders, and the communities the company serves). The most effective companies were making these multidimensional business model shifts every two to four years.” (Mitchell and Coles, 2003, p.16)

The most important finding of their study refers to what might be termed a *strategic leverage effect of business model innovation*: In line with Porter (1996), Mitchell and Coles (2003) identified cost and differentiation strategies to be driving outperformance, whereas the really new insight was that top performers were using business model innovations to amplify their strategic effectiveness. Amit and Zott (2010) draw comparable conclusions from different studies among thousands of CEOs who see business model innovation as top priority compared to product or process innovations which often create only short-term competitive advantages. Amit and Zott go even further and completely separate business model innovation from product and process innovation and claim

that it is less costly, more effective, and the appropriate approach in times of capital scarcity, such as the latest global economic downturn.

5.2 Degrees of business model innovation

Based on Mitchell and Coles' study a typology of business model innovation is proposed including the four stages of *adjustment*, *adoption*, *improvement*, and *actual redesign*:

- *Business model adjustment* refers to changes of only one (or a minor number of) business model element(s), excluding the value proposition; i.e. modifications of customer relationships, business infrastructure, or the financial pillar alone constitute adjustments.
- *Business model adoption* refers to changes that mainly focus on matching competitors' value propositions. This requires changes to products and/or services, but sometimes also parts of the customer relationships pillar and the business infrastructure as these elements can be part of the value proposition as well (Osterwalder, 2004).
- *Business model improvement* takes place, put simply, when most of the business model elements are changed. That is, simultaneous changes of a major number of elements, such as customer relationship approaches, infrastructure elements such the business network, and the financial logic are required to replace an existing model.
- *Business model redesign* exists when an improvement leads to a completely new value proposition. While a business model might be improved without changing the value proposition to the market (e.g. shifting from own production to process licensing), a redesign replaces the underlying business logic *and* offers new products, services or product-service systems (Devisscher and Mont, 2008). An example is a car manufacturer who develops from a sole product vendor to a mobility provider, for example, by offering car-sharing or even ride-sharing services (Hansen et al., 2010).

The strategic leverage effect of business model innovation increases the effectiveness of business strategies. Against this background, the following section presents an integrated framework by bringing together sustainability strategies (and the related business case drivers) and the four degrees of business model innovation.

6. AN INTEGRATED FRAMEWORK OF SUSTAINABILITY STRATEGY, BUSINESS CASE DRIVERS AND BUSINESS MODEL INNOVATION

In the previous chapters we have argued that, firstly, environmental and social activities aiming at business cases for sustainability can be attributed to a continuum of generic sustainability strategies (defensive, accommodative, and proactive). Furthermore, to create business cases these strategies should address, i.e. support, the main drivers of business success (costs and cost reduction, sales and profit margin, risk and risk reduction, reputation and brand value, attractiveness as employer, as well as innovative capabilities; cf. Table 1). Secondly, modifications or even further development of a company's business model may be necessary to fully unfold the business case potential of these sustainability strategies and the drivers they address (cf. Table 2). Summarizing these links, the present chapter introduces an integrated framework for the business case for sustainability by combining sustainability strategies, the degrees of business model innovation and business case drivers. This framework is intended to help practitioners and researchers to identify how a given sustainability strategy must be combined with a certain degree of business model innovation (cf. Table 3):

- *Defensive strategies* with slight degrees of business model adjustment or adoption *protect the current business model*. They only touch few business case drivers and these in a modest way and thus do not create substantial business cases for sustainability.
- As a contrast, *proactive strategies* leading to (actual) business model redesign address many business case drivers strongly and continuously, with the effect of *regular creations of business cases for sustainability*.
- *Accommodative strategies*, positioned in between these two rationales, go along with a change and some improvement of the business model, thus exerting some influence on business case drivers by *experimenting within the current model*. The influence of accommodative strategies, however, is less fundamental and lasting as that of proactive strategies.

Table 3: An integrated framework of the business case for sustainability based on sustainability strategies, business case drivers, and business model innovation

Sustainability strategies	Degree of business model innovation	Effects of addressed drivers of business cases for sustainability	Contribution to business cases
Defensive	Business model adjustment*	Mainly <i>cost and efficiency-oriented measures</i> aim for low-hanging fruits and thus only require moderate (if any) business model changes. Accordingly, only a minor number of business elements (excluding the value proposition) are affected. Sustainability issues are primarily perceived as <i>risks</i> leading to protective behaviour, while <i>reputational activities</i> are of a rather cosmetic nature.	Business Case for Sustainability
	Business model adoption*		
Accommodative	Business model improvement	<i>Cost and efficiency-oriented measures</i> are pursued actively and partly linked to sustainability issues. Together with sustainability-oriented <i>risk management</i> this can require very basic changes like renewing production processes, changing value network partners, or approaching new market segments. A general orientation towards external addressees in terms of <i>reputation, brand, and attractiveness to employees</i> can require basic changes in customer relationships and business processes.	
Proactive	Business model redesign	As proactive strategies feature radical changes to the core business logic of a company, a major number of business model elements will be affected. <i>Sales and profits</i> are improved by environmentally and socially outstanding products and services, leading to not yet available value propositions. <i>Cost and efficiency-oriented measures</i> are applied to support the new products and services and to gain competitive advantage through sustainability performance, which in turn pays in terms of <i>risk management, reputation and corporate brand value</i> . As innovative drivers unfold their full potential the company becomes increasingly <i>attractive to high-skilled employees</i> .	

* Mitchell and Coles, on which this classification is based, themselves reduce the lowest two degrees of business model innovation to one category (cf. Mitchell and Coles, 2003, p.17)

The framework should also help to identify possible conflicts between the chosen corporate sustainability strategy and the degree of business model innovation. For example, if an ambitious, proactive sustainability strategy is chosen, but the degree of business model innovation is constrained to a business model adoption (e.g. through green “me-too” products), frictions will inevitably occur as the business model will be too rigid to fully implement the sustainability strategy and develop the related business case drivers. A textbook example for this situation is the greening strategy of Shell, “Responsible Energy” (e.g. Backer, 2009). Understanding these relationships might help to identify and adjust wrong expectations towards the payoff of social and/or environmental measures, what otherwise would lead to the management’s disappointment. Further developing the understanding of these linkages may also help to prevent greenwashing, as it helps external stakeholders to earlier detect dissonances in a company’s approach.

7. DISCUSSION AND OUTLOOK

A business case *of* sustainability is often described as a situation where economic success is increased while performing in environmental and social issues. As a distinct difference to this view (see Section 2), a business case *for* sustainability is created only if economic success *through* voluntary social and environmental activities is achieved. Given that such a business case does not happen, but has to be managed actively, core requirements of a business case for sustainability are voluntary social and environmental activities which are based on intended management activities to improve sustainability through which a positive economic effect is created.

To intentionally manage business cases for sustainability requires a good understanding of how the drivers of a business case can be positively influenced with societal and environmental activities. The main identified business case drivers are costs and cost reduction, sales and profit margin, risk and risk reduction, reputation and brand value, attractiveness as employer, and innovative capabilities (see Section 3).

Furthermore, sustainable development requires more than coincidental, ad hoc or eclectic creation of a business case now and then. A strategic, i.e. systematic, coherent, and continuous, management of business cases for sustainability may rather require a more fundamental change and development of the business model of the company. Investigating the interrelations between the corporate strategy and the drivers of a business case for sustainability (see Section 4.1) on one hand, and the business model and the drivers of a business case on the other hand supports the argument that business model innovation may be key to create a strategic leverage effect (see Section 5.1).

Based on the understanding of a business case for sustainability introduced in Section 2, a business *model* for sustainability can be defined as supporting voluntary, or mainly voluntary, activities which solve or moderate social and/or environmental problems. By doing so it creates positive business effects which can be measured or at least argued for. A business model for sustainability is actively managed in order to create customer and social value by integrating social, environmental, and business activities.

Business model innovations as a result of business model management can be broad or focused. Based on Carroll's distinction between defensive, accommodative and proactive strategies (Carroll, 1979) and Mitchell and Coles' business model innovation hierarchy (Mitchell and Coles, 2003) a *basic typology of sustainability-oriented business model innovation* was developed: defensive strategic management to protect the current business model; accommodative strategic management to experiment within the given business model; and proactive strategic management leading to business model redesign. These strategies address the business case drivers with different intensities and focus, and thus differ in how likely and systematically a business model for sustainability will be achieved, with accommodation and proaction being the most focused and promising.

However, despite the promises of business model innovations being the next big step of strategic management (e.g. Voelpel et al., 2004 Johnson, 2010), it has to be recognized that this kind of innovation often faces significant barriers. Chesbrough (2010) reviews central hurdles identified from previous academic research: conflicts with the current business model, conflicts with the underlying asset configuration, and missing clarity about the “right” model to exploit an innovation (ibid., pp. 358-359). *Conflicts with the prevailing model* can origin in two major sources: firstly, the resistance of managers being afraid that the acknowledgement of their personal contribution to the company might decrease if the modus operandi changes, and secondly, the influence of the dominant business logic on the information that flows into and circulates within the company. These inherent conflicts can result in strong resistance since managers prefer to do what they have always done and with what they have been successful (given the existing incentives) (e.g. Chesbrough, 2010; Prahalad and Bettis, 1995) and since organizations tend to learn what they already know (e.g. Argyris, 1999; Kim, 1993; Levitt and March, 1988). As a consequence *the current underlying asset configuration of the business model* may not be changed. Asset allocation and exploitation are key strategic issues directly related to managers decision-making and information availability. Accommodative and proactive business model innovations might be blocked because of allocation principles in favour of existing technologies with high gross margins: “As the firm allocates its capital to the most profitable uses, the established technology will be disproportionately favored and the disruptive [i.e. the new] technology starved of resources.” (Chesbrough, 2010, p.358)

Furthermore, *missing clarity about the “right” business model* to exploit innovations may be another crucial obstacle for sustainability-oriented business model innovation. This failure is closely related to the influence that the dominant logic exerts on organizational learning and information availability. In their exemplary article on business model innovation at Xerox, Chesbrough and Rosenbloom (2002) were able to track back missed business opportunities to the underlying, dominant business model which created a lock-in effect against technologies which could not be exploited with the existing business model. Such an example was the very successful Ethernet protocol developed by 3Com, a company that commercialized a technology that did not match the Xerox business model. Chesbrough’s (2010, pp.359-362) conclusion is that creating and adopting new business models by means of experimentation, effectuation and organizational leadership can help to overcome these hurdles.

Sustainability-oriented innovations are obviously predisposed to not fit with the dominant logic of an established business model. However, accommodative and proactive sustainability strategies may help creating and adopting new business models which support the continuous and systematic creation of business cases for sustainability.

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